

# Rock Products

DEVOTED TO THE PRODUCTION  
AND SALE OF ROCK AND CLAY PRODUCTS.

Vol. II.

LOUISVILLE, KY., JUNE, 1903.

No. 3.

## A Worker and His Work.

In view of the fact that the lime industry in general is coming to the front at a great rate just now, especially in the way of up-to-date methods, not only in the process of manufacture, but in the conduct of business, methods which go to make business more of a certainty and less of a gamble, and to make the men in the business broad-gauged fellows, and friends in a co-operative way instead of enemies in a business way, there is nothing more appropriate than a word in season about those who have done things to promote these conditions.

One of these men, and one of whom we have been wanting to say a word about for some time, is Peter Martin, of Huntington, Ind., first vice prest. of the National Lime Manufacturers' Association. Peter Martin was born in Ober Kirchen, Prussia, August, 1857, and was educated in the public schools of Germany, so it is to Germany, the country to which we are indebted for many ideas in rock products, particularly the chemical and scientific matters pertaining to the manufacture and use of lime and cement, that we are also indebted for Peter Martin, who is one of the bright and steady lime lights and a pioneer in the association work of the lime industry.

Beginning at the age of fourteen, Mr. Martin served a couple of years as an apprentice at stone cutting and masonry. In 1873 the family sought the great country of America, and, on coming over here, he joined his uncle, Michael Baltes, a well-known business man who was manufacturing lime at Huntington, Ind., and here young Peter Martin was set to work about the quarries and kilns, where English was spoken as Americans speak it, and he knew only the German. Then it was that he showed the metal of which he is made—the first outcropping of the coming man of accomplishments was in the way he resolved to master the English language while at the same time doing his man's work and his duty in a business way—and did it. During the slack time of winter he went to school, and when he went to school he forged ahead, just as he forged ahead at work. And how he forged ahead at his work may be gathered from the fact that before this raw German emigrant was nineteen years old he leased the Baltes quarries himself and still continued to go to school during the winter season. At the age of nineteen he formed a partnership with Mr. Nix, and, under the firm name of Martin & Nix, they bought a few acres of land and began the manufacture of lime.

At that time there were 10 concerns manufacturing lime in the county, and competition was sharp, but young Martin had the stuff in him that succeeds even under such conditions, so he prospered. After two years the firm became Baltes & Martin. Mr. Martin organized the Huntington White Lime Association, which after varied successes and changes, finally resulted in the Western Lime Co. This was the real offspring of Mr. Martin's mind—his dream of many years. He

sult of that deal is the handsome prospect to-day owned and controlled by the Western Lime Co.

The wheel-horse in organized business means that a man is broad gauged and he wants to get all there is in his business and at the same time help the other fellow. Such a man is Peter Martin. He has done more for the improvement of the business in the States of Ohio and Indiana than any other one man, and as he grows older his competitors gain better impressions of the man and wish to join him in any enterprise in which he is in any way connected.

His excellent address made at the National Lime Manufacturers' Association meeting, of which he was elected first vice president, gave those manufacturers who had known Peter Martin a new impression of the man. To know him is to respect him, and to know him well is to think him the best fellow in the business.

Mr. Martin is prominent in all the business life of the thriving city of Huntington, is largely interested in real estate, banking and similar enterprises, and enjoys the confidence of his business associates in all lines to a remarkable degree. In brief, at the age of 46, the young German recruit of 1873 is a remarkable example of the results of American business opportunities when backed up by ambition, and energy intelligently applied.

Mr. Martin has always sought improvement in the lime industry, both in business methods and mechanical appliances, and as a result of his research and study along the question of mechanical methods and appliances, he has invented a device for burning lime with coal, for which he has just been allowed a patent. The process and appliances involved in this patent which are figured out as giving the best results in burning lime with coal, are briefly these: Steam water pipes are passed along the top of the kiln arches where coal is shoveled in. As the coal is passed in steam and water are dashed on it. Thus a gas is formed and the blaze is carried up through the stone which it is the desire to convert into lime. Mr.

Martin says that in using such a combination the moisture makes the lime of superior quality and protects the lime from crusting and burning.

As many processes have been tried by his concern, the Western Lime Co., for burning lime, they are unquestionably in a position to pass intelligent judgment on things of this kind, and as a consequence, whatever they pronounce as being best in this line will certainly get respectful attention from the lime trade in general.



PETER MARTIN.

believed that a company strong in capital, efficient in organization and conducted along the economical lines possible by such an organization, would be a great factor in the trade—and insure commercial success of a higher degree than was practical under the old regime. And his associates had full confidence in him, and confidence of the kind that did not hesitate, as was evidenced when he proposed the deal that created the Western Lime Company—the deal was closed in an hour. The re-

CHAS. ALLIS, *President.*E. H. BALL, *Secretary.*B. F. HORSTING, *Treasurer.*

# CHICAGO BELTING CO.

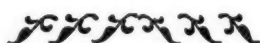
## Leather Belting Specialists.

### "RELIANCE"

*THE PEER.*

Belts for BALL MILLS. Belts for TUBE MILLS.

Belts for GRIFFIN MILLS.



OFFICE AND FACTORY

67-69 S. Canal Street,

CHICAGO.

# MACOMBER AND WHYTE ROPE CO.

MANUFACTURERS OF

## WIRE ROPE

FOR USE IN ALL

### ROCK PRODUCTS

Main Offices and Warehouse, 19 and 21 So. Canal St., CHICAGO, ILL.

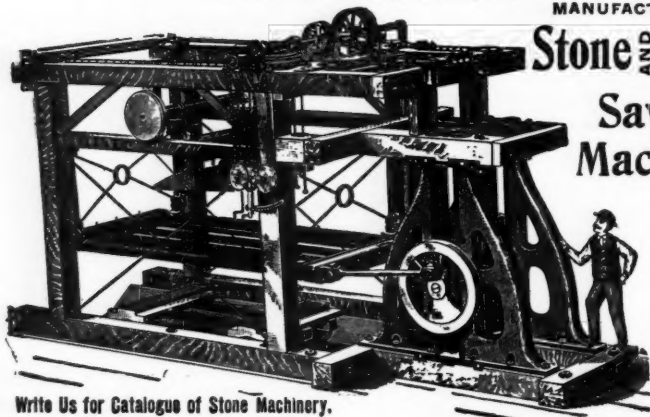
Factories: COAL CITY, ILLINOIS.

## THE GORDON FOUNDRY & MACHINE CO.

ST. JOSEPH, MO., U. S. A.

MANUFACTURERS OF

Stone and Marble

Saw Mill  
Machinery,Derricks  
and  
Quarry  
Hoists,  
Etc.

Write Us for Catalogue of Stone Machinery.

## The J. B. Ehram & Sons M'f'g Co.

Builders of Complete Gypsum and Cement  
Plaster Mills, Rock Crushers, Calcining  
Kettles, Plaster Mixers, Hair Pickers,  
Elevating and Conveying Machinery, Power  
Transmitting Machinery of all kinds. :: ::

ENTERPRISE, KANSAS.

Tell 'em you saw it in ROCK PRODUCTS.



We are producers of Buff and Blue

AUDITORIUM HOTEL AND ANNEX, CHICAGO.

# Bedford Oolitic Limestone,

Sawed, Turned and Machine Dressed.

## OOLITIC STONE CO. OF INDIANA.

CONTROLLING

ROBERT REED, Sec'y-Treas.

THE BEDFORD QUARRY CO.

BEDFORD,

AND THE NORTON-REED STONE CO.

INDIANA.



The Above Buildings Were Erected From the Buff Limestone of Our Quarries.

### United States Gypsum Co.

General Offices, 184 LaSalle Street, CHICAGO, ILL.

#### Manufacturers of WALL PLASTERS Unsanded

Alabaster Cement Plaster.  
Big 4 Cement Plaster.  
Diamond Cement Plaster.  
Duncombe's Cement Plaster.  
Flint Cement Plaster.  
Granite Cement Plaster.  
Ivory Cement Plaster.  
Imperial Cement Plaster.  
K. & N. Cement Plaster.

O. K. Cement Plaster.  
Rock Cement Plaster.  
Roman Cement Plaster.  
Red, White and Blue Cement Plaster.  
Waterloo Cement Plaster.  
Zenith Cement Plaster.  
Baker Cement Plaster.

#### Prepared WALL PLASTERS Sanded.

Adamant Wall Plaster.  
Big 4 Wall Plaster.  
Diamond Wall Plaster.  
Granite Wall Plaster.  
Ivory Wall Plaster.

Imperial Wall Plaster.  
Rock Wall Plaster.  
Zenith Wall Plaster.  
Baker Wall Plaster.

**BRANCH OFFICES:** Ellicott Square, Buffalo, N. Y.; Ft. Dodge, Iowa; New York Life Bldg., Omaha, Neb.; 480 Virginia St., Milwaukee, Wis.; Lumber Exchange, Minneapolis, Minn.; Foot of Tower Ave., West Superior, Wis.; Hammond Bldg., Detroit, Mich.; Indianapolis, Indiana; Sandusky, Ohio.

### JOHN A. ROWE, Rustic Monumental Works.

Monuments, Vaults, Vases, Chairs, Etc.

CUT  
STONE  
FOR  
BUILDINGS.

Estimates given for any  
kind of Stone Work made  
in the

Celebrated  
Bedford  
Stone.



New Design Book for One Dollar.

Four Vault Designs for One Dollar.

BEDFORD, - - INDIANA.

# The Ohio Lime Company,

MANUFACTURERS OF AND WHOLESALE DEALERS IN

WORKS AT

Fostoria, Ohio.  
Gibsonburg, Ohio.  
Sugar Ridge, Ohio.  
Tiffin, Ohio.  
Woodville, Ohio.

**Ohio White Finishing Lime, Ground  
Lime, Lump Lime, Fertilizer,  
New Process Lime, Hydrate  
Lime, Cement, Plaster,  
Hair, &c.**

Capacity  
3500 Barrels  
Per Day.

OFFICE:

209-210-211 CHAMBER OF COMMERCE BUILDING.

**TOLEDO, OHIO.**

Tell 'em you saw it in ROCK PRODUCTS.

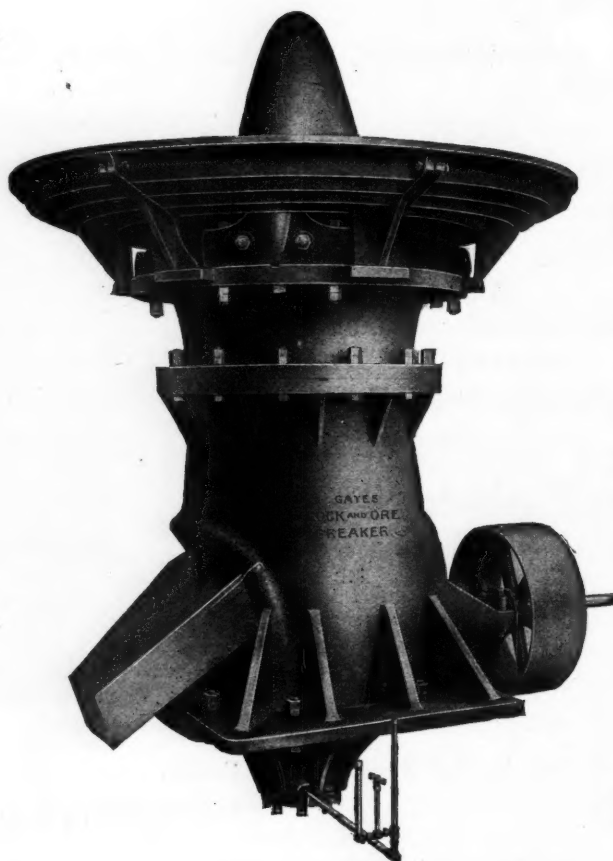
# ALLIS-CHALMERS CO.

SUCCESSOR TO

THE EDWARD P. ALLIS CO.,  
MILWAUKEE, WIS.FRASER & CHALMERS,  
CHICAGO, ILL.GATES IRON WORKS,  
CHICAGO, ILL.DICKSON M'FG CO.,  
SCRANTON, PA.

SOLE BUILDERS OF

## Gates Rock and Ore Breakers



New Features

IN

Construction

OF

Great

Importance

TO

Crusher Users

SAVES 20 PER CENT

Complete Crushing Plants Designed and Equipped  
Our 25 Years' Experience is at Your Service

## BRANCH OFFICES:

NEW YORK, Broad Exchange Bldg.  
BOSTON, Board of Trade Bldg.  
PITTSBURG, Frick Building  
MINNEAPOLIS, Cora Exchange Bldg.  
DENVER, 1649 Tremont Street  
SALT LAKE CITY, 209 S.W. Temple St.  
SPOKANE, Washington

## GENERAL

CHICAGO,

LONDON, ENG., 160 Dashwood House



## OFFICE

ILL., U.S.A.

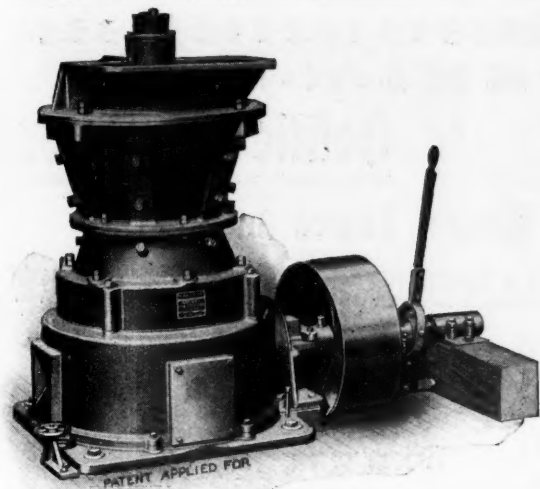
JOHANNESBURG, South Africa

## BRANCH OFFICES:

SAN FRANCISCO, Hayward Bldg.  
SEATTLE, Lumber Exchange Bldg.  
CHARLOTTE, N. C., Trust Bldg.  
NEW ORLEANS, Hennen Bldg.  
ATLANTA, GA., Equitable Bldg.  
BUTTE, MONT., 51 E. Broadway

Tell 'em you saw it in ROCK PRODUCTS.





No. 2 ROTARY FINE CRUSHER.

# Rotary Fine Crusher

Capacity **15** Tons

per hour or less  
according to size of machine and output.



UNSCREENED FINE PRODUCT, ACTUAL SIZE.

Prepares Rocks of Medium Hardness for Fine Grinding in Pulverizers or Mills.

SEND FOR CIRCULAR OF

**CRUSHING, GRINDING AND SCREENING MACHINERY.**

**STURTEVANT MILL CO., Boston, Mass.**

## Over 1000 Acres of SOLID MARBLE

**Marble Cliffs.  
Giant Walls of Marble.**

**Broad Acres of Marble.  
Smooth Floors of Marble.**

The Columbia River Marble Company of Spokane, Wash. owns 1320 acres of solid marketable marble. This property is within half a mile of a trans-continental railway. Freight rates are low enough to carry the marble to the Atlantic seaboard in competition with imported marble.

This is the largest tract of marble under one corporation in this country. It is all marble. There is no dyke or vein of marble. It is one gigantic mass, acre after acre, cliff after cliff. It comprises rare tints of cream, blue, gray and includes masses of clear white and great bodies of banded white and blue.

Marble from the surface of the Columbia River Marble Co's property is closer grained, takes a higher polish and is harder than marble taken from the deepest workings of the oldest and best Vermont quarries. This is a broad assertion, but we are prepared to prove it.

The men who are operating the Columbia River Marble Co. are the pioneers of the marble business in Washington. They DEVELOP the properties they control. Any Spokane business house will vouch for them. References, Bradstreet and Fidelity National Bank, Spokane.

The first issue of the treasury shares of the Columbia River Marble Company is now offered for a limited time at 25 cents per share. Par value is \$1.00, fully paid and absolutely non-assessable.

### OUR WIDE OPEN, FAIR AND SQUARE, STRAIGHT FORWARD PROPOSITION:

We believe in this property. We know it is the biggest marble proposition in the world aside from the Carrara mountain in Italy. We want you to know it. We seek investigating investors. Here is our proposition: Subscribe for 25,000 shares of this stock for yourself alone, or for yourself and associates. Then go see the property at our expense. If you don't want the stock after you see the marble, we refund the money and stand the whole expense of your inspection. We prefer to have you see it.

PROSPECTUS, MAP, REFERENCES AND FULL INFORMATION SENT TO ANY ADDRESS.

# Columbia River Marble Company

31-32-33 Spokane and Eastern Building,

SPOKANE, WASHINGTON.

Tell 'em you saw it in ROCK PRODUCTS.

**HARRISON SUPPLY COMPANY,**

34 India Wharf, BOSTON, MASS.

**Chilled Steel Shot**

FOR

Sawing and Rubbing Granite, Freestone and Marble.

Warranted Superior to all Other Brands.  
A Large Stock Constantly on Hand

ALSO

Carborundum, Emery, Puttypowder, Etc.

SUPPLIES OF ALL KINDS FOR  
**GRANITE POLISHERS.**

Every hand polisher of Granite and Marble should write for information regarding our "Combination Box."

SAMPLES AND PRICES  
UPON APPLICATION.**NATHAN C. HARRISON, General Agent.****BANNER CEMENT CO.,**

MAKERS OF THE FAMOUS BANNER BRAND OF

**LOUISVILLE CEMENT.**Guaranteed that 90 per cent. will pass a  
ten thousand Mesh Sieve.

WE SELL TO DEALERS ONLY.

GENERAL OFFICE: MASONIC TEMPLE,

CHICAGO, ILL.

I Sell Blue and Buff Bedford . . .

**Oolitic Limestone**

Rough, Sawed and Cut.

Promptness a Specialty, Both in Answering Inquiries  
and in Filling Orders.

**Geo. W. Bollenbacher,**

The Stone Broker,  
Bloomington, Ind.

**COOPERAGE.**

You make a great mistake in ordering your

**STAVES, HOOPS, HEADING,  
NAILS, STAPLES, ETC.,**For Lime, Cement, Salt and other  
products, without writing to**THE BIBB BROOM CORN CO.**

MINNEAPOLIS, MINN.

FACTORIES in Wisconsin, Minnesota, Michigan, and Ohio.

 **The Henry Martin Brick Machine**  
MANUFACTURING CO., INC.  
LANCASTER, PA.

**ROCK CRUSHERS.**

Fire-BRICK MACHINERY-Paving

CEMENT MIXERS,  
ELEVATORS,  
WHEEL BARROWS, ETC.


SEND FOR COMPLETE CATALOGUE.



**BRICK MACHINERY.**

THE AMERICAN CLAY-WORKING MACHINERY CO., CUYAHUS, OHIO.

The Best Machinery for  
the manufacture of the  
best product. The quality  
of our machinery insures  
the quality of your brick  
and freedom from repairs.  
Machinery for the manu-  
facture of clay products  
by all processes.

 **LUNKENHEIMER**  
**GLASS BODY**  
**OIL PUMPS** 

Universal Fig. 495

Are easy to fill, attach and operate. Glass body shows stage of oil. Made in four sizes, holding  $\frac{1}{8}$ ,  $\frac{1}{4}$ , 1 pint, 1 quart of oil. The "Universal" can be attached either vertically or horizontally by transposing a plug and shank which are interchangeable. Oil Pump Fig. 495 can only be attached vertically. Both styles are of handsome design and highly finished, and warranted to satisfy. Specify "LUNKENHEIMER" make and order from your dealer. Write for catalogue of Superior Brass and Iron Steam Specialties.

**THE LUNKENHEIMER CO.**  
Sole Makers and Patentees, CINCINNATI, OHIO, U. S. A.  
BRANCHES: New York, 26 Cortlandt St. London, 35 Great Dover St.

HAVE YOU ANY

Engineering

**PROBLEMS**

TO BE SOLVED?

DO

YOU BURN

**LIME?**

P. O. BOX 2048

BOSTON, MASS.

The ELDRED PROCESS for the preparation of Lime, which keeps indefinitely. Lime so treated may be shipped in cloth or paper bags without deterioration.

The ELDRED PROCESS for LIME BURNING displaces wood with bituminous slack coal, with a large SAVING in FUEL COST. Full information will be forwarded on request.

COMPLETE TESTING LABORATORIES  
FOR ANALYSES OF ROCK AND LIME.THE SOLUTION OF MECHANICAL AND CHEMICAL  
PROBLEMS CONFRONTING MANUFACTURERS A  
SPECIALTY.**BYRON ELDRED,**

Mechanical Engineer.

Offices and Laboratories: BOSTON, MASS.

Tell 'em you saw it in ROCK PRODUCTS.





THE FRANCIS PUBLISHING CO.,  
Publishers.

E. H. DEFEBBAUGH,.....*President and Manager.*  
J. CROW TAYLOR,.....*Vice President.*  
FRED W. RUGG,.....*Secretary.*

A monthly trade journal devoted to the interests of the manufacturers and dealers in rock products and kindred lines, including Lime, Cement, Salt, Sand, Slate, Granite, Marble, Sandstone, Grindstones, Artificial Stone, Emery Stone, Quarries, Monuments, Manganese, Asphalt, Phosphates, Plaster, Terra Cotta, Roofing and Roofing Tile, Coal, Oil, Mineral Wool, Brick, etc.

The mission of ROCK PRODUCTS is to serve the trade in any and every honorable way possible, to promote better profits and make life more pleasant for those engaged in the business to which it caters. With this end in view, criticism is courted, and all are invited to use its columns to further ideas and suggestions for the good of the trade. The office, too, is at the service of the constituents of this paper; so when you want to buy or sell, or merely ask a question, write, and when you are in town, call and make it your headquarters.

"TELL 'EM YOU SAW IT IN ROCK PRODUCTS."

SUBSCRIPTION RATES, \$1.00 per annum, postpaid anywhere in the United States, Canada or Mexico; \$1.50 elsewhere in the Postal Union. Single copies, 10 cents.

ADVERTISING RATES will be furnished on application.

ADDRESS ALL COMMUNICATIONS TO

THE FRANCIS PUBLISHING COMPANY,

431 W. Main Street, Louisville, Kentucky.

APPLICATION MADE FOR ENTRY AS SECOND-CLASS MATTER.

BRANCH OFFICE, NEW YORK CITY:  
Room 502, 136 Liberty Street,  
ALEXANDER CRISTADORO, *Manager.*

LOUISVILLE, KY., JUNE, 1903.

## OUR SLATE.

### THE SUMMER

*Association season is on.  
Keep your eye on the dates.*

MANUFACTURERS of roofing who are alive to opportunities should take this fact home with them, and then let us hear about it: There comes to this office from time to time inquiries about roofing material which indicate a desire for more thorough knowledge on the subject of roofing. Why not help us talk roofing—and do yourself a little good, too, as we go along.

THERE is a distinction between a lockout and a strike, but the effect on business is about the same in each case.

THE American marble resources are being developed at a healthy rate, and the outlook ahead is very bright for this product.

THERE seems to be a good wave of prosperity in the phosphate territory, and producers are working all the help they can get—and wanting more.

REPORTS indicate that there is considerable activity in the blue stone district of New York, and the output of flagstone is increasing right along.

THE Association of Portland Cement Manufacturers expects to meet at Atlantic City, N. J., some time in June. The exact date has not been set at this writing.

THE right movement has been started among the quarry owners, and now we would like to see every quarry owner in the United States get in line and join the Quarry Owners' Association.

IF all the new cement concerns projected, get into operation in due time, it looks as if there will be plenty of producing capacity to take care of the needs of that Isthmian canal we propose to build.

THE weather and labor difficulties in the West have retarded trade conditions. Lime manufacturers are suffering somewhat therefrom. We hope that later in the summer things will be much better.

THE high cost of material and work has caused the abandoning of some building projects this spring, but there is a fair amount of work to be done, for all that, and the only trouble is to get it done without dissensions some where along the line to block operations.

WE keep hearing about the cost of laying asphalt, the big profits in asphalt, and a lot more along the same line from the newspapers of the country, and now will some one please tell us just what it does cost to lay a square yard of asphalt under the average conditions holding in street work.

OUR English cousins seem to be getting their eye on South Africa as a growing market for brick and cement, and more particularly of brick and cement machinery for the development of industries down there. We mention this in passing simply as a hint to our friends in the trade on this side.

AMONG the topics to be considered at the coming meeting of the National Plaster Manufacturers' Association will be the bag question, mixers, dryers, credits, and a number of other subjects of special interest to all plaster manufacturers. We would like to see every man come and take part in the discussion of these subjects.

WE take pleasure in informing the readers of Rock PRODUCTS that we have now associated with us on the editorial staff of this paper S. V. Peppel, formerly with the Ohio Geological Survey, Columbus, Ohio. Mr. Peppel is a well known figure in geological work, and especially in connection with studies and researches in the lime, cement and plaster industries, and has written for the Ceramic Society, of which he is a member, some very valuable papers on the sand-lime brick industry. Mr. Peppel will for the present spend much of his time on the road, but will be in the office enough to take care of all matters requiring expert geological attention, and we feel that this will be appreciated by our readers, for while we are in close touch with both the State and the United States official geologists, there is nothing like having a geologist right at home.

IN the department of social economy at the St. Louis Fair there is to be an exhibit known as "Organization of Industrial Workers." The exhibit will consist mainly of pamphlets giving histories of organizations, both of employers and employees. There will also be exhibits consisting of charts, diagrams, etc., showing industrial disputes and the manner of their settlement. Methods of remuneration, giving wage systems, piece wages, profit sharing, co-operative efforts and other matter of this nature will be given space, including everything along the line of social economy, from the shop to the home of both employe and employer.

FROM time to time we have something to say on the subject of pushing lime as a fertilizer, and occasionally some progressive lime man will speak up and say something on the subject, but the work in this line does not show spirit enough. It strikes us that the lime manufacturers should prepare for distribution in the territory reached by them, literature calculated to inspire a more general use of this product—make a study of the location, the crops grown and the nature of the soil, and then prepare literature to fit the case. If your product is being handled by a dealer, confer with him on the subject, for it will be to your mutual interest to push lime in this way. We are here to help in this matter in any way we can, and are anxious to hear from both manufacturers and dealers on the subject.

THERE is one point in the matter of this cry for increased wages all along the line of rock products from the quarry to the finished structure, that does not seem to have come in for the consideration it should by either side, but which will likely make itself felt before the season is over, and that is the increase in cost to the man that builds. When lumber of all kinds went up it caused a turning to the harder and more durable building material in excess of what would have been, had there been nothing but a desire for more lasting structures as an inducement, which, added to the natural desire to build better, made last year an exceptionally good one in volume of consumption of rock products. The year, however, while it brought fair returns to the trade in general, was one in which the profit margin was small in many lines, so that producers in these lines naturally felt called on to move prices up a notch this year and get a profit return in keeping with the business activity of the building world. Then, no sooner did signs of prosperity show themselves, than the men who help produce the material felt that they, too, ought to have part of the pie, and that an additional sum should be tacked on the selling price of the material to give them a fair share of prosperity in the way of increased wages. Meantime, the men who put the material into the buildings began a clamor for a larger slice of prosperity in the same way, with the result that before the building season is even fairly opened up the increased cost of building with rock products has wiped out any prestige gained on account of the increased cost of building with lumber—and still the clamor for more wages goes on. Nor does the effect of this increased cost of building end with the wiping out of the advantage gained by the higher cost of lumber; in fact, that is only the beginning—the end means less building, less work all along the line, and a smaller consumption of material than we might expect under more favorable circumstances. This fact is already making itself felt in various ways and at many points, and if it is not given due consideration by both workmen and employers the result may be a smothering of promised prosperity to such a degree as to practically wipe out all promised gain.



# A NATIONAL QUARRY OWNERS' ASSOCIATION FORMED.

THERE WAS STARTED AT CHICAGO, ILLINOIS, MAY 19, A MOVEMENT TO ASSOCIATE QUARRY OWNERS FOR MUTUAL BENEFIT.

## HOW IT WAS DONE.

CHICAGO, ILL., May 19.—It was a splendid morning, and the gathering of the clans from a dozen States evidenced that there was an interest in the organization of a quarry owners' association. Many of those who had indicated their desire to be in at the "bornin" were unable to come for some particular local reason, but when E. H. Defebaugh, of Rock Products, called the meeting to order, there was quite a goodly delegation present.

He stated the objects of the meeting as follows: The object of this meeting to-day is to form an association that will bring together the quarry owners of the United States once or twice a year for social intercourse, exchange of ideas, to discuss methods and improvements in the business, which will add volume, profit and pleasure in your line of trade. The origination of this move is due to the suggestion of W. H. Wallace, of Michigan, and several other quarry owners in the United States.

The letters addressed to me were, with one or two exceptions, out of some 1,200 operators, favorable, and while we have only had favorable responses from something like 100 quarrymen, some of these quarries operate on a large scale, thus indicating an up-to-date representation here to-day, and favorable responses by many of those who were unable to come, owing to its being a busy season, the distance being great, and previous engagements preventing their attendance.

I think we can all congratulate ourselves on the encouragement to this movement, and it is my belief that if our efforts are lent to this organization, by the semi-annual meeting some time in February, the greatest number of quarry owners ever brought together will assemble. Surely, no man, whether he be a large or small operator, can question the need for friendly intercourse and co-operative effort for the protection of the owners of quarries in the United States. In the first place there is no industry employing so many men and operating on such large lines that is not unionized and hence there is no body of manufacturers or operators that is not hindered by the antagonistic and oftentimes malicious actions of their employees.

There is no set of men in these United States that has suffered more from organized labor, and, with few exceptions, sectional bodies are not successful competing with these aggressive movements, which, if allowed to go unchecked, will practically place your business in the hands of your employees.

The application of new methods in the quarrying of stone should be interesting to every quarry owner who desires to make a profit out of his business, and there is no place where an exchange of ideas will bring greater results than a meeting together of operators in the same line in the United States.

In visiting some of the stone-producing sections of the United States, I find a lack of co-operative effort to get the real value of the quarried stone. This is due largely to petty jealousies and a lack of harmony among operators. A national organization should, through its officers and members, imbibe that attractive, friendly spirit which makes good members of a national body and insures personal interest in local organizations, which, if conducted on the proper lines, with fairness to all, absolutely guarantees a better profit and more satisfaction in conducting the business.

Without organization the operators are often at the mercy of the railroads on which they are located, and while it is probable that the freight departments of these roads do not desire to do any injustice, yet the large tonnage which this industry furnishes to the transportation lines should insure favorable classification of rates, and oftentimes if the right committee from a strong organization were to present claims of the local sections to the railroads, increased tonnage would accrue to the transportation lines and more profit to the quarry owners.

There are many subjects which, if thoroughly discussed by an organized body, and the best minds give their suggestions, it would insure more intelligent competition, which adds profit and pleasure to the craft.

Not the least of the profitable returns from the attendance at a national organization is the social feature. Quarry owners become better acquainted when they can get their feet under the same table, and it is my belief that operators who spend two or three days a year with their competitors, be they large or small, even though they may be conducting their business in States a thousand miles apart, will gain knowledge about their own business, will make friendships which are pleasant, and the investment from all the above and other benefits, which time and your patience will not permit me to mention, will insure greater returns to every operator in stone who becomes a member of the organization.

I trust, gentlemen, that this meeting will be the means of launching the strongest and best organized body in these United States. That we may accomplish the most in the shortest length of time, I will suggest a temporary chairman and secretary be selected, that we may get an expression from every one present as to the needs of the trade and how to better cope with them.

After reading correspondence from quarry owners from Maine to California, he asked a suggestion from those present as to lines of work and plans for organization, after which E. H. Defebaugh was selected as temporary chairman and Sol M. Wolf, Bellevue, Ohio, as temporary secretary.

S. M. Hall, Bucyrus, Ohio, spoke of his experience in organized effort among the coal dealers of the United States and of the benefits gained thereby. He expressed the need of organized effort to get more for the product of the stone quarry and was sure that organization would eliminate the demand for dust free crushed stone, and suggested the possibility of improved methods in operating the quarry.

F. A. Brown, Aberdeen Granite Co., Aberdeen, S. D., said he had come to learn what he could from the efforts of people engaged in the same line of trade, and he thought they would be largely benefited by organized method.

L. Fisher, Delphos, Ohio, was very favorable to organization.

W. M. Bales, LaGrange, Ill., believed that organization did a great deal of good.

O. N. Fulwider, of Bloomington, Ind., also favored organization, as did Capt. D. McL. McKay, of the Perry-Matthews-Buskirk Stone Co., as well as Vice President Borst, of the Consolidated Stone Co.

Sylvester Marshall, who was the first president of the old quarry association, suggested that much profit was gained although the association was short lived. He thought this an opportune time for organized effort among the quarrymen.

A. T. Malone, who was also an officer in the last organization, spoke of the value of the efforts in this direction.

Others spoke in the same vein.

On motion of Mr. Hall, seconded by Mr. Fulwider, the constitution and by-laws as recommended by the committee for this purpose, was adopted as read, and a motion made that we proceed to organization.

## CONSTITUTION AND BY-LAWS.

### ARTICLE I.

#### Name.

The name of this organization shall be the National Quarry Owners' Association.

### ARTICLE II.

#### The Object of the Association.

The object of this association shall be to promote social intercourse, discussions of all subjects of general interest to the trade, to organize and foster local associations, to improve and promote better methods in the quarrying and sale of stone, to take action to compete with other trade, to adopt ways and means to increase the sales of its members, to favor and co-operate for a fair classification and equitable rates of freight and take action on all special questions for the advancement of the interests of the trade.

### ARTICLE III.

#### Membership.

Any reputable quarry owner in the United States shall be eligible for membership in this as-

sociation by making application in writing and paying his membership fee and annual dues in advance and said individual, firm or corporation shall be entitled to one vote, provided he has the endorsement of two-thirds of the Board of Directors present at any meeting or their consent in writing.

### ARTICLE IV.

#### Officers.

The officers of this association shall be composed of a president, first, second and third vice presidents, secretary and treasurer, and a Board of Directors composed of one member from each State represented in the association, including the officers of the association.

### ARTICLE V.

#### Meetings.

The regular meetings of this association shall be held in February and August of each year such place as the Board of Directors shall decide.

### ARTICLE VI.

#### Election of Officers.

All officers and directors shall be elected annually by ballot and hereafter at the regular meeting to be held in February.

### ARTICLE VII.

#### Vacancies.

In case of vacancy in any office, the same shall be filled at the next regular meeting of the association, at which a majority of the members present shall decide by a vote taken by ballot. Pending such action the President may appoint a member from the directory to fill such vacancy.

### ARTICLE VIII.

#### Amendments.

These articles may be amended at any regular meeting of the association, or at any special meeting by giving written notice to each member ten days in advance of such meeting.

## BY-LAWS.

### ARTICLE I.

SECTION 1.—*Presidents*—It shall be the duty of the President to preside at all meetings, to appoint special committees, call special meetings, and direct the work of the Association.

SEC. 2.—*Vice Presidents*—It shall be the duty of the Vice President, in the absence of the President, or ranking Vice President, to perform all the duties of the President.

SEC. 3.—*Secretary*—It shall be the duty of the Secretary to give notice and attend all meetings of the Association, to make a written report at each regular meeting, to keep the books and records of the Association, and to attend to correspondence.

SEC. 4.—*Treasurer*—It shall be the duty of the Treasurer to collect all money due the Association, and to keep account thereof, to pay all bills when approved by the President, to make a financial report at each regular meeting.

SEC. 5.—The office of the Secretary-Treasurer may be held by one man who is not a regular member of the Association, at the option of the Association.

SEC. 6.—*Board of Directors*—The Board of Directors shall have power to hold meetings at such times and places as they may deem proper, appoint committees on particular subjects on their own board or from the membership, to print and circulate documents, to raise funds and appropriate same, to employ agents if necessary, and to devise and carry into effect such measures as they may deem expedient to promote the objects of the Association, and the Secretary and all agents or servants of the Association shall be at all times subject to their direction. And an Executive Committee shall be appointed by the Board of Directors, composed of the President, Vice President, Secretary and Treasurer, to facilitate the work of the body.



ARTICLE II.

Revenues.

The membership fee shall be \$10.00, the annual dues \$10.00. The funds necessary for special expenses of the Association shall be raised by an assessment, which assessment is not to exceed \$25.00 a member per annum, unless a larger sum is voted by the majority of the members present.

ARTICLE III.

Amendments.

These By-Laws may be amended or changed at any regular meeting of the Association, by a two-thirds vote of the members present.

The officers selected by the committee on nomination are as follows: President, D. McL. McKay, Perry-Matthews-Buskirk Stone Co., Chicago, Ill., and Bedford, Ind.; first vice-president, W. H. Wallace, Wallace Stone and Lime Co., Bay Port, Mich.; second vice president, F. A. Brown, Aberdeen Granite Co., Aberdeen, S. D.; third vice president, S. M. Hall, Broken Sword Stone Co., Bucyrus, Ohio.

The committee on directors of the association recommended the nomination of the following:

Ohio.—Sol. M. Wolf, Bellevue.

Wisconsin.—A. J. Blair, Milwaukee.

Vermont.—D. Smith, Barre.

Indiana.—O. N. Fulwider, Bloomington.

Illinois.—E. T. Malone, Chicago.

Massachusetts.—O. W. Norcross, Worcester.

In the States of Kentucky, Missouri, Pennsylvania, New York, Minnesota, South Dakota, Georgia, and others, the directors will be selected later as per resolution.

On motion, which was made and seconded, the nominations by the committee for officers and directors were elected unanimously, including E. H. Defebaugh, who was elected secretary-treasurer of the association.

After the discussion of a number of matters of general interest by those present, the constitution and by-laws was signed by the charter members of the association.

Among those who indicated their desire to become part of this association are the Ingalls Lime and Stone Co., Ingalls, Ind.; Wm. Bannerman & Co., Berlin, Wis.; the Hollensbe Stone Co., West Port, Ind.; Carl T. Wells, Redan, Ga.; Davis & Mayne, Blue Springs, Neb.; The Climax Stone Co., Bedford, Ind.; Georgia Quincy Granite Co., Macon, Ga.; Gillen Stone Co., Green Bay, Wis.; Phoenix Stone and Lime Co., Kansas City, Mo.; Quincy Granite Quarries Co., Quincy, Mass.; Bellevue Stone Co., Bellevue, Ohio; Maxwell Stone Co., Ludlow Falls, Ohio; Wabash Stone Co., Fort Wayne, Ind.; Chesapeake Stone Co., Ashland, Ky.; B. N. Arquitt & Sons, Farley, Ia.; Brayton & Kerr, Kankakee, Ill.; Rumer & Blythe, Fulton, Ohio; Hillis Stone Co., Greencastle, Ind.; A. A. Magee, Greensburg, Ind.; Mills Bros., Springfield, Ohio; E. B. Vanderhoof & Co., El Dorado, Kan.; Alexandria Stone and Quarry Co., Alexandria, Ind.; Le Grand Quarry Co., Marshalltown, Ia.; The D. C. Statler, Co., Piqua, Ohio; McLeod & Embree, Pughwash, N. S.; D. Joseph, Lima, Ohio; G. Ittenbach & Co., Indianapolis, Ind.; Holes Bros., St. Cloud, Minn.; Preston Blue Stone Co., Rowlesburg, W. Va.; J. M. Leach & Co., Kokomo, Ind.; Rucker Stone Co., Greenfield, Ohio; Arizona Granite Co., Phoenix, Ariz.; V. A. Biggs, Iowa Falls, Iowa; Cleveland Stone Co., Cleveland, Ohio; Perry-Matthews-Buskirk Stone Co., Bedford, Ind.; Consolidated Stone Co., Bedford, Ind.; Bedford Quarries Co., Bedford, Ind.; J. W. Kerrick, Elizabethtown, Ky.; Independent Stone Co., Cleveland, Ohio; I. H. Peddicord & Son, Baltimore, Md.; Jas. Bruce Quarries Co., Joliet, Ill.; Laurel Stone Co., Laurel, Ind.; Portage Entries Quarries Co., Chicago, Ill.; Malone Stone Co., Chicago, Ill.

On motion, the secretary was instructed to proceed to secure the membership of every quarryman in the United States, and a number of those present suggested that each in his particular section make it a point to call on his neighbors and secure their memberships in the association, believing that by organized effort the quarry owners would be able to secure better methods and more satisfactory returns from their investment through this organization. Local organizations are to be formed where it is necessary, and a special effort made by the officers and directors of this association to push the matters in this direction at once, that when we meet in February at such a point as may be selected by the board of directors, a full delegation will be seen through efforts of this organization for the betterment of the trade.

On motion of Mr. Hall ROCK PRODUCTS was made the official organ of the association and the quarrymen generally were recommended to look at its columns for reports from month to month in reference to the work of this organization.

The meeting then adjourned.

NOTES AND COMMENTS.

One of the most interesting, profitable and gratifying features of the meeting was the many little side gatherings and buttonhole talks.

While these groups were sometimes made up of men working on the same class of stone, they were just as often made up of men representing different classes of material entering entirely different markets. We asked one of these mixed groups what they had in common to justify such an animated conversation. The reply came promptly from several, and it amounted to this: "John was telling us how he overcame a difficulty that he had been contending with for some time, and while we are working an entirely different class of material, what he has told us has given us a valuable suggestion, one which will save us no end of annoyance, and some money as well."

Among the many problems which received the attention of the buttonholers was, how to make county commissioners be good—how to get a profit out of limestone screenings; how to get some value out of spalls from building stone quarries; price paid for all kinds of labor in different sections—prices obtained for stone by the different companies represented, freight rates, rebates, car service and demurrage, etc.

There was not a single man present who did not express himself as more than repaid for the time and money spent at so busy a season, both from a social and an educational standpoint.

The next meeting will be a hummer. Load yourself to the guard with questions and be ready to answer as many as you ask. If your difficulties are urgent, fire them at ROCK PRODUCTS. We are at your service.

Sol. M. Wolf, of the Bellevue (Ohio) Stone Co., was the swellest delegate in attendance and did the society act by attending a dinner in proper regalia—and a cab.

S. M. Hall, of the Broken Sword Stone Co., Bucyrus, Ohio, was feeling good over having closed a contract the day before he came to the meeting for six miles of macadam road at a satisfactory price. He says they are in business to make a fair profit and not for the love of the thing.

W. M. Bales, of La Grange, Ill., has some ideas of his own on conveyors.

Use Georgia Marble.

Box & Ellis, Anniston, Ala.—Our prospects are very good at present. We use mostly Georgia marble, but some Vermont and Italian. We have several nice orders for monuments, running from \$100.00 to \$250.00, in Georgia marble.

A. F. Lamb, Randolph, Vt., is building an addition to his marble plant, which is to be used for a storage and display room.

The Julius Keller Construction Co. has been incorporated at Indianapolis, Ind., to manufacture and deal in sand, lime, coal, etc., with a capital stock of \$10,000.00.

Mr. G. W. Loewenstein, of Dallas, Tex., is enjoying a lively run in the roofing business, and is reported as having quite a string of contracts on hand for the summer.

The William Klincke Co., of Philadelphia, Pa., has been incorporated at Philadelphia, Pa., with a capital stock of \$250,000.00, to deal in cement, plaster, etc.

The H. P. McLaughlin Co., Houston, Tex., has been consolidated with the Browne Slate and Metal Co., under the firm name of the Browne-McLaughlin Co., with a capital stock of \$100,000.00, and will have offices at 810 Willow Street, Houston, Tex. The business of the company will be to deal in cement, lime, brick, building material of all kinds including roofing. The officers of the company have been elected as follows: E. M. Browne, president; Fred Hartell, vice president; J. M. McLaughlin, secretary; J. E. Browne, treasurer and assistant secretary; H. P. McLaughlin, general manager.

For the Retailer.

The National Builders' Supply Association.

Meets Semi-Annually.

JOHN A. KLING, Cleveland.....President  
C. E. McCAMMON, Cincinnati, Ohio.....Vice President  
GORDON WILLIS, St. Louis, Mo.....Vice President  
J. N. THAYER, Erie, Pennsylvania.....Treasurer  
RICHARD KIND, Toledo, Ohio.....Secretary

Official Organ, ROCK PRODUCTS.

DATE CHANGED.

Owing to the inability to get hotel accommodation at Detroit, the Executive Committee of the National Builders' Supply Association have changed the date for the summer meeting of that body to the first week in August, commencing Tuesday, August 4. Further announcement of this meeting will be made next month.

Growing from Year to Year.

H. A. Theyer, Hagersville, Ont., Canada.—I had a very good spring trade and prospects are good for the summer. I have been doing better every year, and I hope to continue to improve and enlarge.

A Change at Clarksville, Ark.

R. S. Davis, Clarksville, Ark.—You will please take note that the Clarksville Hardware Co. is a thing of the past, as I have bought them out.

Will Enlarge Cement Warehouse.

Barnett & Griffith, Lake Forest, Ill.—Replying to your inquiry in regard to trade, would say that business is good and the outlook ahead is fair. In the way of improvements, we are going to enlarge our cement warehouse and build a new coal elevator.

Good Outlook for Stone in Montana.

Daniel McKay, Great Falls, Mont.—The stone trade in this State is growing better every day, and there is quite a demand for brownstone, nearly all public buildings being built of stone in this State, and the price is low compared with other materials. The stoneworkers' wages are also the most reasonable of any other craft in Montana. This encourages the building of stone instead of brick. I look for a large trade in future in cut stone in Montana.

Represents Freeport in New York.

Thomas J. Moore, Richmond Hill, New York City.—I have been appointed sole agent for the Metropolitan district (a radius of 25 miles from City Hall), for the Freeport Granite Co.'s excellent product, a granite resembling blue Westerly, in grain; a little lighter in color, working easier, and a stone suitable for either fine buildings or monuments. We are in a position to furnish rough stock in boat or carload lots, or finished work, as we have a good cutting plant at the quarry. We have a good article at a low cost to consumers.

The Elevator Fireproof Casing Co., has been incorporated with incorporation offices at 419 Market Street, Camden, N. J., with a capital stock of \$600,000.00. The company will engage in the manufacture of fire proof materials. The incorporators are: G. W. Grand, Joseph F. Cotter and William F. Eidell.



# Lime.

## The National Lime Manufacturers' Association.

Meets Semi-Annually.

A. NEWTON, Chicago, Ill., ..... President  
 PETER MARTIN, Huntington, Ind., ..... First Vice President  
 W. B. HILL, Kansas City, Mo., ..... Second Vice President  
 CHAS. WARNER, Wilmington, Del., ..... Third Vice President  
 C. W. S. COBB, St. Louis, Mo., ..... Treasurer  
 E. H. DEFEBAUGH, Louisville, Ky., ..... Secretary

Official Organ, ROCK PRODUCTS.

### LIME MEETING CHANGED.

The National Lime Manufacturers' Association is called to meet at the Boody House, Toledo, Ohio, at 10:00 a. m. June 30.

Owing to the fact that the joint meeting in the May issue of the National Builders' Supply Association, the National Lime Manufacturers' Association and the National Plaster Manufacturers' Association could not be effected, the officers of the National Lime Manufacturers' Association concluded that June 30 would be a more desirable date and suit a greater number of manufacturers, who have been consulted on the subject. It is to be hoped that the Boody House, Toledo, Ohio, and the date, June 30, will meet with your approval, and that you will make your plans to be with us, believing that the program, part of which is herewith attached, will be of such interest to every man who desires to increase his profits in the lime business that the attendance will be large and enthusiastic.

We hope to be able to announce to you some other interesting subjects of discussion under personal letter, and as this meeting will be an executive one every manufacturer of lime should be present.

The meeting will be called to order at the Boody House, at 10 a. m., June 30.

The first thing on the program will be roll call, which will be followed by the president's address, the report of the secretary-treasurer, and then there will be an appointment of such committees as are thought necessary to facilitate work.

Mr. Sutliff, of the Seneca White Lime Co., Fostoria, Ohio, has promised to deliver an address on "Lime, and Liming for Agricultural Purposes."

"Coal Burning in the Lime Kiln" will be discussed by Chas. Warner, of Wilmington, Del., and C. W. S. Cobb, of St. Louis, Mo.

There will be a talk by Peter Martin, of Huntington, Ind., on a number of subjects, including co-operation, lime burning, etc.

There are a number of other interesting talks being arranged for, including a discussion of kiln construction, and besides those being specifically arranged for, the officers of the association desire to announce that they will be glad to have any member who has some interesting subject to discuss that will interest lime manufacturers consider this an invitation to come and deliver himself of these ideas. In fact, it is the desire that all take a hand in these discussions, both in the presentation of addresses and in the discussion of papers and addresses of others.

Other interesting features in connection with this meeting which may develop will be announced later by letter, but enough has already been said to point that this will be a very interesting and profitable gathering for lime manufacturers, and from the interest shown up to this date, it looks like there will be a large attendance.

If you have not yet made up your mind to come, do so at once, and begin to shape your affairs so as to be an active delegate in attendance at the meeting—and bring your neighbor along.

### Methods in Lime Manufacture.

One would hardly suppose that so simple a process as that of calcining limestone could be done in more than one or two ways, since the whole operation consists only in the application of heat to limestone. There is, however, a wide range of practice in the details for accomplishment of this result.

Among all methods of burning are represented in the United States from the very crudest to the most modern. Beginning with the crudest method which has been used, we have farmers producing lime on their own place by piling lime up in cone-shape piles with waste wood and firing the entire pile. This of course will not get a very desirable product.

The next step in the evolution of the lime kiln is represented by the lower type of pot kiln, which usually consists of a bee hive shape room with a hole in the top, which has been built out of limestone, without any lining, and the lime is burned by putting in alternate layers of wood and coal and limestone.

The higher type of pot kiln is represented by a similar shape kiln, only somewhat higher, which consists of an iron jacket lined with fire brick.

This brings us to the more modern kiln. These kilns consist of a circular vertical shaft, varying in diameter from five to nine feet, and in height from 12 to 30 feet. These kilns are differentiated by the use or not, of the cooling chamber, methods of drawing and methods of firing. While there are a few of these kilns still in use without cooling chambers, they are rapidly disappearing. Where the cooling chamber is absent, it is necessary to shovel the hot lime out, which is not a pleasant task. The various kilns in different localities of the United States are fired by wood, or wood and coal, coal alone, coal and steam jet, oil, natural gas and semi producer firing with coal, such as the Eldred process, and with producer gas. Oil and natural gas, while they have been used in this country, are probably too expensive now. Wood in most cases, is practically exhausted, so that the predominant fuel is, and must be, coal. Many efforts are being made to produce with coal the same kind of a fire as is produced with wood. This has led to the introduction of steam or water vapor into the fire box, which in its passage through the glowing carbon converts a portion of it into water gas, and thus moves the center of combustion further into the kiln, increasing the length of the flame.

Another effort in this direction is the forcing of the kiln gases up through the fire again. The carbonic acid gas in these kiln gases during its passage through the hot fuel, is in part, reduced to carbon monoxide which is one of the products produced in the manufacture of producers gas. This carbon monoxide will ignite later and burns with rather a long flame with low intensity, which is a desirable sort of a fire for lime burning.

Another kiln is semi-gas firing and is described by Gerhard, of Germany in the *Tonindustrie Zeitung* for 1902. Gas producers are being tried by at least one firm in the United States. A gas producer can be so operated as to produce a combustible almost identical in composition with that from wood, and the time will no doubt come, when this will be the method used by those who are seeking the best possible product. With gas producers there is, of necessity, some heat lost by radiation, but the increased efficiency of the fuel will probably more than overbalance this loss, especially if the producer is very close to the kiln. Producers might even be built as a part of the kiln wall.

Lime kilns and the attachments thereto have received a great deal of attention from those of an inventive turn of mind. There have been issued in the United States no less than 140 or 150 patents, lime kilns and attachments. Notwithstanding this great array of patents on lime kilns, there are comparatively few people paying royalty on lime kilns.

### A New Market for Hydrated or Prepared Lime.

Nearly all dye houses use lime or lime compounds in some shape or form. A general practice in the use of lime for this purpose is to make lime water or milk of lime. Lime water is simply a solution of lime. Since lime is not very soluble in water, this means supplies only a very small amount of the active agent, unless extremely large volumes of water are used. Therefore most dyers use it in the form of milk of lime, which consists of large amounts of fine lime particles suspended in lime water.

The caustic lime will in a measure disorganize certain vegetable fibers. On this account, it is sometimes necessary to use carbonate of lime in the form of whiting or chalk, since the carbonate particles are very fine, divided in these two forms of calcium carbonate. The latter is much more expensive than lime, but they have the advantage that they can be stored with safety without change.

The prepared lime has the advantage over quick lime of being stored in paper bags without change in quality, and without damage to the bags. There is no danger from fire as there is with quick lime. It is well known that quick limes rapidly deteriorate with age through air slacking. Hydrated limes could be used in most cases where the other products are used. It is in the condition most sensitive to the attack of acid. Since the lime is used to neutralize acids, this prepared product should be the most efficient. The physical condition of the hydrate is very favorable, it is in a very fine state of division. Pounded for pound, it will be more effective than any of the carbonates, and it is cheaper than any of the commercial whittings.

### Limestone Screenings.

How can we dispose of our screenings to the best advantage, is a daily nightmare with most crushed stone men. Some engineers have helped to make many sleepless nights for the crushed stone man.

For road macadam, there should be no screenings left over. Everything which passes a certain size should be used. The cementing quality in the very fine dust is a decided advantage, since it prevents the rolling and rubbing of the coarser particles. When a road has been surfaced with limestone screenings, and dust, we have a very solid and pleasant road to ride over.

Those who have railroad ballast trade might look a little after road building, and thus work in much of the smaller stuff.

The rapid strides which concrete construction is making, and the much more rapid increase in the use of limestone screenings in such construction, will probably solve the problem in many sections, if the manufacturer of crushed stone will educate his people to the use of this material.

A large amount of limestone screenings are sold after having them ground to a fine powder to the fertilizer manufacturers, and in a few lines of chemical manufacturers for the purpose of neutralizing acids. Limestone particles free from iron and low in silicate can be ground and sold to glass manufacturers.

Most of the limestone screenings may be ground and enter rather a limited market, as a source of supply for carbonic acid gas manufacture.

Another use which has received practically no attention, is to use ground limestone in place of sand in mortars and plaster, especially would this be desirable in sections where sand is scarce.

The building stone man and the lime manufacturer both have the same proposition to contend with, but the tailings or spawls are much larger. The only salvation for these men is to put in a crusher, and get into politics. However, by the proper adaptation of the kilns, the lime man may use much smaller stone than is the practice to-day, and to good advantage as well, since in the nature of things the product produced, other things being equal, would be thereby improved. The whole problem could be solved by the largest producers if they were to equip their plant with a rotary lime kiln and a hydrating plant. Then, all screenings could pass through a second crushing process to be reduced to material somewhat uniform in size. This could be fed to a rotary just the same as the cement mixture is fed in the manufacture of Portland cement by the dry process. The resultant product would be a lime powder, which would be in the best possible condition for slaking. If this is immediately put through a hydrating machine there will be left the product which answers all purposes of freshly slaked lime, and is in a condition which will permit of its being stored for a long time without loss of quality, and is also in a condition which permits of its safe transportation by water. This material can be packed in paper packages for there is no expansion and no heating.

### Out of the Lime Business.

GAFFNEY, S. C., May 5.—I am out of the lime business and can't join your association, but if I was still in the business I would try to be a member. Mr. James H. Turner here is thinking of going into the lime business. W. H. RICHARDSON.



### Lime as Fertilizer for Berries.

Bulletin 91, Agricultural Experiment Station, Kingston, R. I., just out, shows that lime is not a good fertilizer for black raspberries. Work done on red raspberries showed good results in one case and bad in another with lime. With black berries there was no question however. The fertilizing of the land with lime gave an increase in yield of nearly 100 per cent.

### Are Adding a Crusher Plant.

COLD SPRINGS, OHIO, May 5.—We are about to install a crusher plant No. 5 Gates, and will then be in a position to furnish concrete dolomite and crushed stone for concrete and macadam work. Business continues good with us, and we have made arrangements to use both wood and coal for fuel in the making of our lime. We are asking higher price for the wood burned product, and find that the paper mills, and better trade appreciate our efforts to give them the best the market affords. We are also busy building stone quarries and getting out some nice bridge stone orders.

THE STRUNK-MEYER LIME CO.

### Compare Notes.

The only difficulty encountered by associated effort in prices nowadays is the lapping of manufacturers who can reach certain territory at a price 10c per barrel less than the other fellow. You know that our friends who are doing this are perhaps misinformed by their traveling men, or they have not been comparing notes with their competitors the other side of the line. It seems to ROCK PRODUCTS that it is to the interest of all lime producers to co-operate with their neighbors in the same territory and get as fair a price for lime as they can. It seems to us that 60c delivered at a central point is a very reasonable price, considering the price of cooerage and other items which have been increasing in cost in the past year or two, and by more friendly business arrangement the benefits to the lime trade would be increased for all.

### Will Add Electricity and Air.

John D. Owens & Son, Owens, Ohio.—We are asking for bids on a complete electric power plant and also a compressor plant for equipping our quarries with electric motors and air lifts. We are installing a new 150 h. p. boiler.

### Will Erect Two Kilns.

The Western Lime Works, Ste. Genevieve, Mo.—In replying to your inquiry about the condition of business, will say that so far as our trade is concerned it has never been better in the history of Ste. Genevieve lime, and our orders at present far exceed our capacity. In a week or two we will commence the construction of two large modern kilns to increase our capacity.

### Visited Natural Bridge.

Williams & Co., Bigelow, N. Y.—There have been no significant changes in our trade this season, and the volume of business is about the same as last year. The Northern New York lime manufacturers met at Carthage, N. Y., May 5. That is, some of them did, and were met by Messrs. Jones, Reed and Yousey, of the New York Lime Co., and accompanied to Natural Bridge to look over the new plant of the New York Lime Co. at that place. They seem to be doing a rushing business, making magnesian lime. The visitors were nicely entertained at Hotel Fargo by the company.

The Pyramid Lime Co. has been incorporated at Reno, Nev., with a capital stock of \$50,000.00.

The Fox Lime and Stone Co., Racine, Wis., has erected a stone crushing plant at their quarry.

The American Lime and Stone Co., Bellefonte, Pa., is building a large stone crushing plant at Armor's Gap.

The Coble Lime Co., Delphi, Ind., are now constructing a plant to manufacture lime and will shortly be ready to start.

Paul Lewis has been appointed receiver of the Milwaukee Lime Co., on the application of the secretary-treasurer of the company.

The Eagle Point Lime Co., Dubuque, Iowa, has been enlarging its plant during the month by the addition of a stone crushing plant.

## Plaster.

### The National Plaster Manufacturers' Association.

Meets Semi-Annually.

H. E. DINGLEY, Syracuse, N. Y., ..... President  
A. H. LAUMAN, Pittsburg, Pa., ..... First Vice President  
L. G. POWELL, Toledo, Ohio, ..... Second Vice President  
JAS. LEENHOUTS, Grand Rapids, Mich., Third Vice President  
ALEXANDER FORRESTER, Cleveland, Ohio, ..... Treasurer  
E. H. DEFEBAGH, Louisville, Ky., ..... Secretary

Official Organ, ROCK PRODUCTS.

### WILL MEET IN AUGUST.

The indications at this writing are that the National Plaster Manufacturers' Association will be called to meet at Detroit, Mich., the first week in August, at the same time and place as the National Builders' Supply Association. Later information will be given by letter, and there will also be further announcement in this column next month.

### Doing a Nice Business.

The Wheeling Wall Plaster Co., Wheeling, W. Va.—We are doing a nice business with good prospects for a fair trade the whole year. We have acquired a good sand bank and are operating it. We believe we have the best, and one of the largest wall plaster works in the country, and we are out for the business.

### A New Mill.

Within six months there will be another factor in the gypsum market. The Consumers Gypsum Co., of Toledo, Ohio, who own a tract of gypsum land in the vicinity of Port Clinton, Ohio, have closed contracts for the machinery and for the erection of a plant about one and one-half miles southeast of Port Clinton, near what is locally known as Fletcherville, and not far from the United States Gypsum Co., at that place. A short spur will be built to the switch track to the Lake Shore & Michigan Southern Railway, which is connected with the United States Gypsum Co.'s spur.

### Gypsum in the Southwestern States.

The gypsum deposits of the United States will be described in a forthcoming bulletin of the United States Geological Survey which is in preparation by Mr. George I. Adams. The development and the importance of the industry in the eastern part of the United States are fully recognized and described, but it is as showing the vast extent of this mineral resource in the Southwestern States that the publication promises to be of special interest. The belt of country extending from Iowa through Kansas and Oklahoma, and into Texas, includes the plants which produce a large part of the output west of the Mississippi River. The deposits in these States are not only practically inexhaustible, but the quality of the material and the position of the beds with respect to railway transportation make it possible for them to supply the markets of a large territory.

In the Rocky Mountain States and the region westward to the Pacific Coast, the gypsum industry is in its infancy. There are plants in Montana, in the Black Hills of South Dakota, in Wyoming, Colorado, New Mexico, Utah, Nevada, California, and Oregon. Some of them have a large capacity, and their product is finding a ready market. This is more particularly true of those which supply the larger cities. The deposits are well distributed in these States, and the character of the gypsum is such that they can meet any requirements of the

trade. No doubt the industry will advance with the growth of the country, and when the value of gypsum plaster is better appreciated it will displace the lime and sand plaster in these States, as it is doing in the East.

Formerly gypsum was imported into California from Mexico. The development of the deposits on the coast makes this no longer necessary. The imported material was used principally as wall plaster, but the high grade of the home product and the fact that it is advantageously situated with respect to railroad facilities have crowded the Mexican gypsum out of the market.

In the Western States there is little need of gypsum as a fertilizer, since the soil is naturally rich, and has not been impoverished by long cultivation. Where there is black alkali in the soil, however, or where this alkali has developed as a result of irrigation, gypsum is applied to neutralize it, and it is found to be effectual. Fortunately, in most cases gypsum beds are found in the areas in which there is a demand for it for this purpose, and their great value in reclaiming the soil is rapidly coming to be recognized.

The Consumers Gypsum Co., Port Clinton, Ohio, has let contracts for the erection of a gypsum mill on the gypsum property owned by them near Bay Shore.

The Electric Plaster Co., Blue Ridge, Kan., which seems to have been doing some prospecting recently on its land holdings is said to have struck an inexhaustible supply of gypsum.

A project is on foot in which Andrew Mackie, of Napoleon, Ohio, is interested to establish The Elastic Plaster Co., at Shawnee, Okla. The prime mover at the Shawnee end seems to be A. C. Davis.

A gypsum concern in France is willing to sell gypsum f. o. b. Rouen for 8 francs or \$1.54, or f. o. b. Havre 11 francs or \$2.12 per ton. The consul there suggests that American coal operators sell coal in France, get return freight in French gypsum, and sell it to operators in this country.

The Fort Dodge Gypsum Co. has been incorporated at Fort Dodge, Iowa, with a capital stock of \$120,000.00. The incorporators are: Frank Fowler and Rufus S. Clark, of St. Paul, Minn. It is said they have option on gypsum land near Fort Dodge, and will erect a plant to develop the property.

The Consumers Gypsum Co., Port Clinton, Ohio, has let a contract for a complete calcining plant to the Des Moines Manufacturing Co., Des Moines, Iowa. The plant is to be one of the very best in the United States, thoroughly modern in every respect, and to be completed in three months. The company will also build its own railroad to the mines and will use electric power to light the mines, mill and also for drilling.

Among the items of interest in connection with the Crown Wall Plaster Co., Braddock, Pa., we note that W. B. Holmes, secretary-treasurer of the company, is to be married in October, and J. W. Coglay, road salesman for the company will be married in June. W. M. Holmes, who is president of the company, is a director in a new bank organized at Braddock, Pa., known as the Union National Bank, which will commence business with a capital stock of \$200,000.00.

We recently had a pleasant visit to the office of the Acme Cement Plaster Co., of St. Louis, Mo., and found J. R. Dugan, secretary of the company and General Manager G. A. Walker. This company, with main offices in the Century Bldg., St. Louis, Mo., manufactures Acme cement plaster, Climax cement plaster, Royal cement plaster, Laramie plaster, and a number of other lines. Their mills are located at Acme, Tex., Marlow, I. T., and Laramie, Wyo. Their plaster is shipped as far East as New England by water, from the Texas plant. They recently purchased 100 acres of gypsum land near Grand Rapids, which will produce 10,000,000 tons of gypsum. They will shortly build a plant at Grand Rapids, Mich., and will probably worry 120,000 tons annually.

The Waters Park Asphalt Co. has been incorporated at Austin, Tex., with a capital stock of \$100,000.00. The incorporators are: John Allen, Gano; James H. Rogers, B. C. Palmer, E. F. Cullen, N. O. Brenizer and George W. Walling.

The General Asphalt Co. has been incorporated at Trenton, N. J., with a capital stock of \$31,000.00. The incorporators are: Samuel B. Lawrence, John B. Summerfield and Alfred T. Davidson, of New York; R. J. Wartendyke, of Jersey City, and Henry A. Bingham, of Oradell, N. J.



# Cement.

## The Cement District of Pennsylvania.

In co-operation with the State authorities of Pennsylvania the United States Geological Survey began work last year in the cement district of eastern Pennsylvania, chiefly in Lehigh and Northampton counties, with a view to publishing large-scale geologic maps of that area. This work was in charge of Prof. T. Nelson Dale and F. B. Peck.

The oldest fossiliferous rock of the district is the "Basal conglomerate," which is described as follows by Prof. Peck:

"The term 'Basal conglomerate,' as here used, refers to the lowest member of the series of beds belonging to the Cambrian, which lies unconformably on the pre-Cambrian gneisses but is conformable with the overlying Cambrian dolomites. It occurs here, as elsewhere in Pennsylvania and New Jersey, as a fringe along the pre-Cambrian areas. In eastern Northampton County it fails occasionally as a result of faulting. It has a thickness varying from a few feet near Easton to one hundred or possibly several hundred feet at Alburtes, 24 miles southwest of Easton.

"Petrographically, it is extremely variable. At times it is a coarse conglomerate, made up of quartz pebbles an inch or two in diameter. Frequently it is a medium to fine-grained arkose, consisting of about one part feldspar to two or three parts quartz, the former usually thoroughly kaolinized, the latter much crushed. Other phases of it present a dense bluish or grayish quartzite. Occasionally it includes interstratified beds of very fine-grained argillaceous sandstone containing numerous casts of worm borings, but no distinctly Lower Cambrian fossils have yet been found in it. The uppermost member is a highly ferruginous, almost jaspery quartzite, which locally contains iron enough to make it a low grade ore. From this horizon a considerable part of iron ore was formerly derived. The lowest member of the series, in a number of instances, was found to pass by almost imperceptible gradations over into the underlying granitoid gneiss, in such a manner as to suggest the decidedly rapid submergence of a deeply weathered Cambrian land mass, over which the sea made a correspondingly rapid advance, affording insufficient time either for the thorough sorting of the loose materials already at hand or for the bringing in of any considerable amount of sediment from a distance. The entire basal series, representing, as it does, distinctly coastal or at least shallow-water deposits, has a total thickness of only a few hundred feet at the most, and the conditions under which it was deposited must have rapidly changed to those necessary for the deposition of the off-shore and distinctly deep-water sediments represented by the 2,000 or 3,000 feet of dolomites and dolomitic limestones which immediately succeed it.

"The series is in the northwestern extension of beds which in York County have been called by Walcott 'The Hallam quartzite,' and is the equivalent of the 'Hardiston quartzite' of Kummel and Weller, in northern New Jersey."

The American Cement Co., of Philadelphia, Pa., will erect a cement plant at Berkley, Va., to cost \$600,000.00.

Reports from Atlanta, Ga., state that The Carolina Portland Cement Co., of Birmingham, Ala., contemplates moving its offices to Atlanta.

W. H. Richardson, who was in the lime business at Gaffney City, S. C., has discontinued. James H. Turner is thinking of going into the business at that place.

The Colonial Cement Co. has been incorporated at No. 1 State Street, Trenton, N. J., with a capital stock of \$30,000.00. The incorporators are: George A. Benney, S. J. Reckerhausen and Peter Backes.

A. Lawrence and others, of Roswell, New Mexico, will erect a cement factory on the Pecos river about fifteen miles from Roswell.

The Alabama Portland Cement Co., Demopolis, Ala., has been adding to the equipment of its plant during the past month and increasing its capacity from 500 to 1,000 barrels a day.

The cement plant at Hancock, Md., owned by Bridges & Henderson, was destroyed by fire April 4. Loss estimated at \$10,000.00. The plant had not been in operation for some time.

The Atlas Portland Cement Co., New York City, has voted in favor of increasing its capital stock from \$7,500,000.00 to \$10,000,000.00, and the additional capital will be used in extending its business.

The Richmond (Va.) Paint and Cement Co. has been incorporated at Washington, D. C., with a capital stock of \$20,000.00. The incorporators are: Nathaniel T. Pate, P. Edwin Dye and William F. Davis.

The Alsen Portland Cement Co., which has headquarters at Hamburg, Germany, but has also been operating in America, has under consideration a project to erect a cement plant near Stockertown, Pennsylvania.

The stockholders of the Coplay (Pa.) Cement Manufacturing Co. met recently and elected directors for the ensuing year as follows: Thomas J. Brady, Joseph L. Berg, Hyman Sonn, Albert Blumenthal, Ferdinand Loeb.

The Reinforced Cement Construction Co. has been incorporated at New York City with a capital stock of \$100,000.00. The incorporators are: H. F. Malloy, Robert E. Doherty and Charles O. Young, all of New York City.

The cement plant operated by Bridges & Henderson, near Hancock, Md., known as the Round Top Cement Works, was destroyed by fire during the past month. The loss is estimated at \$25,000.00. It is said they will rebuild at once.

The Baldwin Portland Cement Co. has been incorporated at Portland, Me., with a capital stock of \$1,500,000.00, to manufacture Portland cement. The officers of the company are: Millard W. Baldwin, of Portland, president; and A. S. Conant, of Portland, treasurer.

The Colonia Cement Co. has been incorporated with a capital stock of \$30,000.00, to manufacture lime and cement, with incorporation office at No. 1 East State Street, Trenton, N. J. The incorporators are: Geo. A. Benney, S. J. Rockerhausen, Pittsburg, Pa., and Peter Backes, Trenton, N. J.

The Empire Portland Cement Co., Syracuse, N. Y., held its annual meeting the past month, electing officers as follows: Thomas Brown, of Franklin, Pa., president; A. F. Miller, of Franklin, Pa., secretary; General Charles Miller, of Franklin, Pa., treasurer, and Chas. A. Lockhard, of Syracuse, N. Y., general manager.

The Pittsburg (Pa.) Cement Co. filed articles of incorporation in New Jersey with a capital stock of \$1,000,000.00. The incorporators are: W. P. J. Lawrence and Carroll Foster, of Pittsburg, Pa.; J. H. Baldwin, Newark, N. J.; Lemert S. Cook, Boston, and Joseph H. Reall, No. 514 Fitzsimmons Building, Pittsburg, Pa.

The Alma Cement Co. is making preparations to begin the erection of a cement plant at Wellston, Ohio, on the site of the old Alma Cement plant, which burned a few years ago, and it is said the company will also erect an immense cement plant on what are known as the Eagle furnace lands, fourteen miles from Wellston.

The Bancroft Peat Fuel and Cement Co., Ltd., has been organized at Bancroft, Mich., with a capital stock of \$25,000.00. It is said that they will soon begin the erection of a large plant near that place. The officers of the company are: Judge R. E. Person, Lansing, president; M. P. Cook, Flint, vice president; F. I. Wixom, Bancroft, secretary and W. E. Watson, treasurer.

The Erdman Portland Cement Co. has been incorporated at Washington, D. C., with a capital stock of \$500,000.00. The company will develop the property known as the John Erdman farm in the Whitehall township, between Seiple's Station and Egypt, Pa. The officers of the company are: Dr. J. D. Erdman, president; Daniel N. Schultz, vice president; Reuben B. Delp, treasurer, Harvey E. Erdman, secretary, and Edmund Erdman, overseer.

The Toledo (Ohio) Portland Cement Co. has awarded contract for its buildings to the Forest Steel and Iron Co., of Cleveland, Ohio. The plant of this company is to be located at Manchester, Mich., and it is said the buildings will cover 23 acres of ground. The officers of the Toledo Portland Cement Co. are: Dr. William Watts, president; Wm. O. Hoist, vice president; Albert W. Butler, secretary-treasurer; and George T. Butler, general manager.

The stockholders of the Zenith Portland Cement Co., Detroit, Mich., decided recently to reorganize the company and take in all outstanding stocks and bonds on the new issue of certificates, etc. Directors were elected as follows: C. C. Corwin and E. J. Forster of Grass Lake; T. E. Barkworth and W. R. Reynolds, of Jackson; F. G. Topping, of Plainfield; John Koch, of Ann Arbor; I. N. Payne and R. W. Standart, of Detroit, and Jacob Dakin, of Danville.

A writer of the New York Sun says that the problem of protecting iron and steel from rust has been solved by the discovery that cement is the article necessary for painting it, and comments on the discovery as follows: "It has been noticed that iron which has been embedded in concrete for many years has shown a wonderful state of preservation when taken out. Experiments have since been made with Portland cement, with the result that it is made plain that a thin coating of Portland cement properly applied to iron and steel will arrest oxidation.

"The cement must be finely divided, free from iron salts and diluted with pure water. Then, if it is from iron, calcium sulphate and sulphites and is of low specific gravity, it will set quickly and practically become a part of the metal. It will set within the iron and will not wash off with rain, and no moisture, carbon dioxide or factory fumes will affect the metal."

## A Good Location for a New Portland Cement Plant.

The following is quoted from *Head Quarters*, a Baltimore publication: "It is a surprising fact that at the present time there is no large factory in Maryland for the manufacture of standard quality Portland cement. Not only is there a very large demand for high-grade cement in Baltimore and Washington and the surrounding country, but there is an abundance of raw material in Maryland suitable for its manufacture.

"At the present time, the manufacture of Portland cement offers exceptionally strong inducements to investors, and especially so in and around Baltimore. In fact, we know of no other industry in which a continuous and largely profitable business can be so readily built up.

"Studying the situation in detail, we find that the freight charges of American Portland Cement in barrels amounts to 35 cents a barrel to Baltimore, and 40 cents a barrel to Washington.

"Now, if some wide awake individual or corporation were to establish a plant near these two cities, this seemingly unnecessary item of freight would be largely eliminated and the investor would line his pockets with lucre while catering to the enormous demand hereabouts."

## SALT.

The Crystal Lake Salt Co. has started up its works at Marine City, Mich., for the summer. The plant has a daily capacity of 450 barrels.

The International Salt Co. is taking steps to rebuild its docks and warehouses at Chicago which were destroyed by fire a short time ago.

The Amalgamated Salt Co. has been incorporated at San Francisco, Cal., to comply with the law which recently compelled the dissolution of the Federal Salt Co., and it appears to be in substance a reorganization of the Federal Salt Co.

Reports from Syracuse, N. Y., state that the Solar Salt Co., of which F. W. Barker is secretary, has sold some real estate north of the West Shore tracks on Franklin Street, 100 feet front and 350 feet deep, to Thomas Marnell.

The receivers of the National Salt Co., New York City, have advertised for bids for the purchase of the various plants of the company, bids to be received up to May 30 at Ithaca, N. Y. Putney, Twombly & Putney, 170 Broadway, are attorneys for the receivers.



# Stone.

Valuable soapstone quarries have been located in Maryland and Virginia.

Reports state that D. E. Oakes, of Logansport, Ind., will establish stone works at once at High Point, N. C.

The Miracle Pressed Stone Co. has been incorporated at Sioux Falls, S. D., with a capital stock of \$50,000.00.

The Hakes Stone Co., Meshoppen, Pa., has purchased stone property near that place and will develop quarries.

The Hudson and Chester Granite Co., Hudson, N. Y., will increase its capital stock from \$200,000.00 to \$250,000.00.

The Sturgeon Bay (Wis.) Stone Co. has been extensively improving its plant and enlarging its facilities for getting out stone.

Watson Herrick, of Southwest Harbor, Me., is to open up a granite quarry at South Seal Cove, according to Bangor, Me., reports.

James P. Harper, ex-postmaster, of Hagerstown, Md., has bought limestone property near Pinesburg, Md., which it is said he will develop.

The Abercrombie Stone Co., St. Joseph, Mo., has been doing some excellent stone work and is an industry of which the city of St. Joseph should be quite proud.

The crushing plant of the St. Cloud (Minn.) Crushed Granite Co., was destroyed by fire May 19. Loss, estimated at \$10,000.00, with an insurance of \$5,000.00.

The Moulton Sandstone Co. has been incorporated at Moulton, Tex., with a capital stock of \$15,000.00. The incorporators are: F. T. Fehrenkamp, John Mand and J. B. Crane.

The Kerr Marble and Stone Co., has been incorporated at Pueblo, Colo., with a capitalization of \$150,000.00. This company will operate in Pueblo, Denver and Fremont counties.

The stone industry in the vicinity of Salt Lake City, Utah, is said to have combined under the firm name of the Brown Stone Co., which is composed of J. A. & C. W. Brown.

The Appalachian Onyx Co. has been incorporated at Washington, D. C., with a capital stock of \$25,000.00. The incorporators are: E. Bossford, Henry D. Gordon and David E. Anthony.

The R. L. Sharpe Stone Co., Sugar Grove, Ohio, has been incorporated with a capital stock of \$50,000.00, by W. H. Sharpe, R. H. Sharpe, J. K. Henry, A. R. Sharpe and Joseph Slater.

The Michigan Alkali Co., of Wyandotte, Mich., has been making a deal the past month for stone land near Alpena, where it is their intention to get out stone to supply the works at Wyandotte.

Reports from Lebanon, Pa., state that the Imperial Limestone Co. has bought 80 acres of limestone property and will open extensive quarries in addition to the quarries already operated by them.

The Blacklick Stone Co. has been incorporated at Columbus, Ohio, with a capital stock of \$10,000.00. The incorporators are: John Vanatta, J. W. Barber, W. A. Vanatta, J. S. Barber and L. D. Marple.

The Webb Granite Co. has shut down its quarries at Marlboro, N. H., and is now getting its supply of stone from new quarries recently opened up at Fitzwilliam, N. H. It is thought that the bulk of this company's business will be carried on at Fitzwilliam.

The Bedford-Bowling Green Stone Co., Bowling Green, Ky., has put in a new traveler and making other improvements at its works so as to enable them to take care of more business. This company has a number of important orders on hand, and have been working overtime during the past month to keep up.

The Seneca Lake Stone Crushing Co. has erected a new crushing plant at Dresden, N. Y.

The Kansas City Stone and Crusher Co. has been incorporated at Kansas City, Mo., with a capital stock of \$2,000.00. The incorporators are: John Mahoney, John Pendergast and M. C. Byrne.

The Panther Hill Granite Co. has been incorporated in New York City with a capital stock of \$100,000.00. The incorporators are: Oscar Staeger, August D. Heyne, Robert T. Brown and Patsy Maresca.

The Builders' Stone Contracting Co. has been incorporated at New York City with a capital stock of \$5,000.00. The incorporators are: Joseph T. Dallas, Alexander S. Traub and Robert E. Henvish.

A terrific wind storm that swept over Northern Ohio, May 22, did considerable damage to the buildings belonging to the Broken Sword Stone Co., at Bucyrus, Ohio, but their crushing plant was not damaged.

The Montana Onyx Co. has been incorporated at Bozeman, Mont., with a capital stock of \$100,000.00. The incorporators are: O. P. Chisholm and Robert C. Chisholm, of Bozeman, and Charles B. Chisholm, of Chicago.

The Ryl Stone Co., Buffalo, N. Y., has been incorporated for the purpose of operating a stone quarry on what is known as the Norton farm, situated about a mile from Gouverneur, N. Y. This company has a capital stock of \$115,000.00.

The Western Granite Contracting Co., of St. Cloud, Minn., has filed articles of incorporation with a capital stock of \$25,000.00. The officers of the company are: Walter Arnold, president; C. C. Dragoo, secretary and O. H. Havill, treasurer.

The Ionia (Mich.) Stone Co. has been incorporated with a capital stock of \$50,000.00. The incorporators are: Samuel Pickles, chairman; Chas. Platts, secretary; James E. Barrett, treasurer, and John W. Miner, member of the board of managers.

The Watson & Jackson Corporation, of New Haven, Conn., has filed articles of incorporation with a capital stock of \$15,000.00, to deal in stone and flagging. The incorporators of the company are: Alexander Watson, Arthur A. Jackson and Geo. O. Brott.

The New England White Marble and Granite Co., of Hartford, Conn., has filed articles of incorporation with a capital stock of \$300,000.00. The incorporators are: David Cass, of Keene, N. H.; Wm. B. Cass, of New Britain, and Henry A. Eastman, of Keene, N. H.

The Toronto Marble Co., Spokane, Wash., has filed amended articles of incorporation changing the firm name to the American Carara Marble Co. and increased its capital stock from \$100,000.00 to \$2,000,000.00. The trustees of the company are: W. H. Montgomery, George E. Wright, B. A. Belknap and Charles G. Reeder.

The Conway Construction Co. has been incorporated at Jersey City, N. J., to manufacture cement with a capital stock of \$25,000.00. The incorporators are: Henry D. Conway, 214 West Avenue, North Jackson, Mich.; John W. Conway, 155 West 125th Street, New York City; Gevert Wedelkin, 2158 Fifth Avenue, New York City, and Frank J. Higgins, 15 Exchange Place, Jersey City, N. J.

The Great Northern Marble Co., Seattle, Wash., has been incorporated to develop marble quarries in the United States, and especially Alaska. Alfred Hammett, of New York; R. H. Ball, Milton Van Dyke, J. C. Rathburn, R. L. Fox, George Pulver, William Deppe and J. W. Shanks are the incorporators. The company has purchased property on Prince of Wales Island, and they will begin developments at once.

The Phoenix Soapstone Co. has been incorporated with a capital stock of \$250,000.00, to manufacture soapstone, marble and granite. The incorporation office is No. 45 Franklin Avenue, Passaic, N. J. The incorporators are: John G. Porter, 36 Beekman Street, New York City; Anthony J. Burger, 496 Decatur Street, Brooklyn, N. Y.; William W. Hulse, Amityville, L. I., and Harry Ougham, 45 Franklin Avenue.

Reports at hand from Spokane, Wash., state that a button industry is the latest addition in industrial lines out there, and that the buttons in question are made of Stevens county green marble, of the United States Marble Co., of Spokane, Wash. For some time, says this report, the company has been making experiments with buttons from the beautiful green marble produced at its works, and the finished buttons have attracted favorable attention wherever shown. A short time ago Manager C. E. Mitchell, of the company, sent some samples back to the big Iowa button factories and had tests made on the strength and durability of the buttons. The reports compare favorably with the best pearl buttons, and the company expects to put in button making machinery to turn out buttons as a regular product. It is expected that for a leader large green buttons suitable for women's cloaks will be used. The smaller buttons, however, can be made equally well, and the wide range of colors and mottling which is possible to obtain in the marble is expected to make them immediately popular.



The spectacle of Don Quixote charging the windmill was not more ridiculous than is the attitude of certain labor unions toward the introduction of new methods and labor saving devices into the

industry by which they are employed. They are attempting to stand in the way of progress which they can no more hinder than Don Quixote could expect to shatter the wind-mill with his spear.



## Editorial Rambles.

### IN THE SOUTHERN MARBLE FIELDS.

THE United States Geological Survey reports of 1902, in speaking of Tennessee marbles, says that they exist in workable beds in a belt in the center of the Valley of Eastern Tennessee, extending nearly across the State, through the counties of Hawkins, Hancock, Hamblen, Grainger, Claiborne, Union, Knox, Sevier, Blount, Roane, Loudon, Monroe and McMinn. All the marble is found in strata of Silurian age, and much of the greater part of it, known as "Holston" marble, in the Chickamauga limestone. The great bulk of the marble quarried comes from the vicinity of Knoxville.

#### AT KNOXVILLE, TENN.

There is nothing more natural with such conditions than that when one starts out to ramble among the Southern marble quarries, Knoxville would be the first central point to work from. My first call at Knoxville was on D. G. Geddes, who is manager of the Knoxville Monumental Works. He carries in stock a fine lot of monuments in Tennessee marble of all colors from the well known gray to the darker hues of pink. Mr. Geddes is one of the finest monumental designers in the business and the monuments in stock at the works there invariably show graceful outlines, no matter what the line of original design.

The next call was on the Evans Marble Co., which has a large mill at Knoxville and quarries up the river four or five miles. The headquarters of this company are in Baltimore, but they do an enormous lot of work at Knoxville. Mr. Evans comes over periodically to consult with their local manager, Mr. Willard, and he was on one of these visits during my call, but I was unfortunate, and not able to make connection with either of them.

#### A TENNESSEE PIONEER.

Out in the suburbs of the town the Tennessee Producers Marble Co. have the largest marble mill in the district, operating twenty-four gangs, and all other machinery necessary in the full equipment of a mill of this size. Colonel W. B. McMullen is president of the company, and Capt. B. L. Pease is general manager. Colonel McMullen is one of the pioneers of Tennessee marble developments, having been at it for twenty-five years. He informed me that they have all the business they can take care of at present; in fact, are rather rushed with their work, both at the quarries and at the mill. They have quarries both above and below town, and I enjoyed a drive out to the gray marble quarries above town, with the Colonel, and saw where and how they got out their Tennessee gray marble. In addition to the gray product, they also have a beautiful pink, though I did not visit the pink quarry. Colonel McMullen is a great believer in modern business methods, and in associated efforts, and some time when I have more space at my disposal, I intend to talk a little about some of these modern ideas of his, because they have some mighty good points in them.

#### WHERE IMPROVEMENT IS THE ORDER.

At the Knoxville office of the Republic Marble Co., I had the pleasure of forming the acquaintance of Mr. Ed. H. Eaton, of Luttrell, Tenn. Mr. Eaton is president of the Ross Marble Co., and also a member of the firm of the Republic Marble Co., the two concerns having offices together in Knoxville. Mr. F. S. Mead is president of the Republic Marble Co., and secretary-treasurer of the Ross Marble Co. In other words, he and Mr. Eaton are associated together in both concerns. Mr. Eaton is also president of the Knoxville Marble Exchange, and he is a thorough all-around marble man, and one of the best posted it has been my lot to meet; and he, too, gave me some ideas which I want to elaborate on some time for the benefit of the trade at large. Speaking of business, he says they are full of business and enlarging their works all around. The Republic Marble Co. has quarries

and mills at Luttrell, Tenn., and he says they are adding four new gangs at that place, which will make the mill there an eight-gang mill. At the works of the Ross Marble Co., at Ross, Tenn., they have been operating two gangs and are now adding two more, which will make that plant a four-gang mill. Mr. Eaton gave me some samples of the product, in which I have a regular Tennessee gray from the Ross Marble Co. works, a light rose-pink from the same works, and a darker pink from the Republic Marble Co. works, and another sample from the same works which is on the order of the dark pink, only still darker, which is called their dark marble. Mr. Eaton and Mr. Mead are also interested in the Knoxville Monumental Works, which I had previously visited, and Mr. Eaton took me for a second visit to the works to show me a sand blast they are using for lettering. The apparatus was built by the American Sand Blast Co., Milwaukee, Wis., and Mr. Eaton is well pleased with its work. He is also putting in an air lift for distributing sand and water for polishing and rubbing. They have a full complement of pneumatic tools in the shop, and always have an eye for any and every kind of appliance that promises to improve methods of manufacture.

Mr. Eaton and I also took a stroll through the cemetery, where I saw some excellent work in Tennessee marble.

#### AMONG THE DOWN TOWN OFFICES.

I stopped in at another monumental works at Knoxville which is operated by W. L. Bean, whom I discovered to be an old acquaintance of my friend, John A. Rowe, of Bedford, Ind., the well known producer of Oolitic monuments. Mr.



TYPICAL OF TENNESSEE MARBLE.

Made by W. L. Bean, Knoxville, Tenn.

Bean seems to have a nice trade and I noticed quite a lot of nice rustic work in marble on hand. I also secured a picture of a "Woodmen" monument erected by him, which is fairly typical of the Tennessee monumental products.

Other marble quarry concerns operating around Knoxville are the John J. Craig Co., The United States Marble Co., the American Marble Co., and John Ross. J. B. Jones is secretary of the John J. Craig Co., which has works a couple of miles out of town, and he was evidently out at the works as I was not able to find him at the office. W. P. Miller is local manager of the United States Marble Co., and also of the American Marble Co., but I missed connection with him, and I also failed to locate Mr. Ross.

#### UP THE BEAUTIFUL HIWASSEE.

It is a picturesque ride from Knoxville, Tenn., to Tate, Ga., over the Atlanta, Knoxville and Northern Railway. The scenery up the Hiwassee river is beautiful, and in addition to its beauty, gives promise of undeveloped resources galore. The river itself appears able to furnish abundance of power, and I noticed some evidence of slate, that caused me to try and connect with General Passenger Agent McWilliams, of the road, to make some inquiries about the quality and possibilities of development in this line.

It is time to stop for a rest now, however, and I will wait till next month to tell of my rambles among the Georgia Marble fields.

J. C. T.

## Slate.

Mr. Charles George has opened up a slate quarry near New Tripoli, Pa.

E. R. Norton and Thomas Griffiths have gone into the slate manufacturing business at Granville, N. Y.

The Bennet Creek Slate Co., Washington, Ill., has been incorporated with a capital stock of \$500,000.00.

Reports state that the Vermont Black Slate Co. has been organized at Northfield, Vt., with a capital stock of \$200,000.00.

Mr. George W. Maynard has been appointed receiver of the assets of the Holly Silicate Slate Co., 180 Fulton Street, New York City.

The American Slate Co., Bangor, Pa., have remodeled their chemical slate mill, making it the most complete mill in the section.

The Knoxville Slate Co., Knoxville, Tenn., has been incorporated with a capital stock of \$50,000.00 with W. D. Hamilton, of Zanesville, Ohio, president. A plant will be erected at once to develop slate quarries in Blount county.

The True Blue Slate Co., New York City, has been incorporated with a capital stock of \$5,000.00, to quarry and manufacture slate. The incorporators are: Charles G. Rice, New York City; Jabez Williams, Bangor, Pa.; Milton H. Yale, Jamaica, N. Y.

The Globe Hard-Vein Slate Quarry, Belfast, Pa., has been purchased by Mr. Charles Shuman, of Bath, Pa., for his son, Dr. John W. Shuman, of Bangor, Pa., and he also has an option on the White Oak quarry, adjoining same, formerly operated by W. T. Allen, of Pen Argyl.

Reports from Baltimore, Md., state that the Union Trust Co., of that city, is engineering a deal to form a company to take over the slate interests of W. Scott Whiteford and Proctor Bros., near Delta, Md. It is said that the proposition for a new company is prompted by a desire to make improvements and enlarge operations.

Reports from Mena, Ark., state that quite a party of visitors were visiting the slate section there during the month, and were entertained by Mr. Wright, of the Southwestern Slate and Manufacturing Co., at Slatington. Mr. J. H. Haswell, who represents the Southwestern Slate and Manufacturing Co., at Dixon, Ill., is talking of opening up offices at Dixon.

Reports from Granville, N. Y., state that a company has been incorporated with a capital stock of \$250,000.00, to take over the slate interests controlled by General William H. Hughes, to manufacture and deal in slate. The officers of the company are: General W. H. Hughes, president and general manager; H. J. Stevens, secretary; W. C. Clark, E. C. Whittemore and R. J. Roberts. Mr. Hughes, who has the general management of the business, has had twenty years experience in the slate business.

The Minneapolis Sidewalk and Paving Co., Minneapolis, Minn., has increased its capital stock to \$100,000.00.

The Graphite Mining and Manufacturing Co., recently incorporated in Alabama, with a capital stock of \$50,000.00, is developing graphite mines in Chambers County, Roanoke, Ala.

The Wisconsin Valley Asbestos Mining Co. has been organized at Stevens Point, Wis., with a capital stock of \$400,000.00, to develop asbestos property in that locality.

The Pennsylvania Graphite Co. has been organized with a capital stock of \$100,000.00, to manufacture graphite, plumbago, etc. Registered offices at 322 Market Street, Camden, N. J. The incorporators are: M. V. Booskirk, W. S. Darnell and J. Daniel Ely.



From Our Own  
Correspondents.

GREATER NEW YORK.

NEW YORK CITY, May 25.—There is absolutely nothing doing in the building line in New York. Stagnation is the only word applicable to the situation. Prices remain the same as last month, there being nothing to send them up or down. But otherwise than in actual building operations there is activity enough. The employers, by repeated exactions and tyrannies of the unions, have not only been roused to resistance, but they have met and combined for mutual support and protection in a thorough manner, that nothing has ever induced before. The lumber dealers led the way, in the first resistance to the union driver's demands, by refusing to deliver any more lumber till the union was disposed to be reasonable. The good example spread, and all the dealers and employers, recognizing the fact that they must just at this juncture strike a blow for their liberty or forever remain slaves to the unions, resolved unanimously to shut down in the delivery of all supplies till matters were materially bettered. The lockout, for that it practically is, extends to about forty trades, which number includes everything relating to building. It affects from 180,000 to 190,000 men, and although accomplished quietly and unheralded by trumpet blowing on the part of the employers, it nevertheless is a deep-rooted movement, those entering it having done so to stay. It is a radical step and far-reaching in its effects, but it was not only called for, but was imperatively necessary, for matters had got to a point here where the employer was fast losing all control of his business, and it was going out of his hands, even to the smallest details, into the keeping of the walking delegates. The end of it at present is not in sight, but no matter how far off may be the conclusion, the employers are in it to stay. The combination embraces dealers, contractors and manufacturers whose interests are all bound up together in the success of the movement.

Mr. W. H. Nesbit, of Pfotenhaner & Nesbit, St. James Building, has returned from his Cuban trip, looking bright and healthy and benefited in every way. He went through the island with the critical eye of the discerning business man, and has much that is interesting to say about the country. One remark he made was, that on the way out, the whole party were annexationists, while on the way back there was not an annexationist in evidence. He says that Cuba must go through an immense amount of experience in the ways of self-government before a union with her would be desirable, and this kindergarten work had better be accomplished by them on their own hook, than under the tutelage of the United States.

A member of a prominent builders' supply firm, in referring to business, said that of course there was none, and will be none till labor matters have come around into better shape. "We simply could not stand the union exactions any longer," he said, "and we have joined in self-defense. All the building supply firms are a unit on this stand. We will supply nothing until conditions are greatly improved. Our association controls the situation. One branch or another, might on its own hook refuse supplies and the result would be more or less effective, but, our association combines all the branches of supply and the lock-out is complete. Some of the papers talk of there being sixty building supply firms, but there are not much over a quarter of that number, which control the situation, and we are all united on our policy. We could arrive at a proper settlement sooner did not some of the papers put the affair in a false light by their constant references to the 'Poor helpless workman.' We have been ridden over rough-shod by them, through their unions, long enough, 'till we can stand no more, and it must be stopped. There is one small feature of the union business that we all, and myself in particular, are mighty sick of, and that is the pair of walking delegates with their

bunches of ten to twenty picnic tickets, which you are expected to buy. They work their way into the private office regardless of your wishes, and ignoring any visitors or customers you may have on hand; in fact, as men we do not feel that they are absolutely above and beyond restraint, and our object now is to try and fix some sense of restraint upon them. As for the ordinary business troubles with the union, their name is legion. We have them at every turn 'till the situation has become unendurable. It is impossible that matters should go on so any longer, and our action now is not an effort at domination of the unions, but an endeavor to free ourselves from their unsupportable tyranny over us."

Regarding the query appearing in the April number of Rock Products as to whether there is on the market any combined crushing and pulverizing machinery, which would avoid and save the installation of two separate systems, Mr. C. G. Buchanan, 141 Liberty Street, Buchanan's crushing machinery, says that in his opinion it is not practical. The two machines have not been successfully combined, although you hear often that it has been done, and he thinks it can not be done. When the rock reaches the size of two inches, the crushing machine has gone to its limit, as a crusher, and another machine, a pulverizer, must now come into play, and there is no other way of doing it.

On the same subject, Mr. J. R. Alsing, 75 Guernsey Street, Brooklyn, said that it was very difficult to say generally whether or not it could be done, as all depended upon the quality and character of the stone to be worked upon. He has a machine which will reduce stone from the dimensions of a brick to the size of coarse sand. But he could not state whether it would fill the bill till he knew the character of the stone and the fineness desired.

Mr. Kimball, of the Kent Mill Co. pulverizing machinery, after carefully reading the paragraph above referred to, said that in his opinion it was an impossibility to unite work so diametrically opposite. Heavy coarse crushing and light fine pulverizing were incompatible and could not be successfully combined. There could be no sufficient reducing action in the same jaws or bowl to effect the result, and it would have to be produced by a series of jaws or mills which would be more cumbersome and costly than separate batteries. Mr. Kimball reports continued success and increasing sales of his phosphate grinding machinery in the South and Southwest.

Mr. Earle C. Bacon, 26 Cortlandt Street, hoisting and crushing machinery, said he knew of nothing that would fill the bill, and doubted if any such thing could be made. He knew of crushers that reduced the rock to a fair degree of smallness, for a crusher, but as for actual pulverizing by the same machine, it was out of the question. The difference between rough crushing and final pulverizing was too great to be bridged over in one machine. He considered it entirely impracticable.

At the office of the Bradley Pulverizing Co., 120 Liberty Street, Mr. Rossman expressed a decided doubt as to the possibility of its accomplishment. He said he knew of nothing on the market fitted to do it. All crushers were limited in their reach. To reduce stone to the size of a chestnut was the most that could be expected of the best of them. After that, the pulverizer came into play. Nevertheless, he said, it was impossible to give an intelligent opinion till you knew the character of the material. For flint or cement rock, the foregoing remarks applied; they could not be crushed and pulverized in the same machine. But with a softer material and a reduced size to start with, then under such different conditions, more might be accomplished. But it was firing in the dark to attempt to express an opinion without a full knowledge of all the conditions.

The Ventnor Stone and Brick Co., of Atlantic City, N. J., has been taken over by a number of gentlemen in New York who are to go into the general line of concrete business and the manufacture of sandstone brick from sand and lime. Mr. C. J. Curtin and the Ruggles-Coles Engineering Co., both of 39 Cortlandt Street, are to remodel the plant for that purpose.

The Pittsburg Portland Cement Co., will shortly start operations at Hancock, Md., for the erection of a large Portland cement mill. Plans are now being prepared for the same at the office of Mr. C. J. Curtin, 39 Cortlandt Street.

The Salem Iron Co., of Leetonia, Ohio, are soon to begin the erection of a slag cement plant with a capacity of 400 barrels a day.

The Ohio Portland Cement Co., of Columbus, Ohio, have all details complete, ready to break ground for a 1,200 barrel mill. The plans and specifications are being prepared at the office of the

company in Columbus, Ohio, and the contract for the erection and completion of the same has been placed with Mr. C. J. Curtin.

Work is progressing rapidly on the improvements being made at the plant of the Mohawk Cement Co., Warners, N. Y. The engineering connected with the same is in the hands of the Ruggles-Coles Engineering Co., and in two months' time the company expects to be making Portland cement.

They had a close call in the Wotherspoon Plaster Mills building this week at Ninth Avenue and Fifteenth Street. The second-hand lumber yard of Southard & Co., next door to them, was blazing up in great shape, the fire being in the rear and side of the office, but it was checked before any serious damage occurred.

Mr. T. D. Cone, of the National New Process Lime Co., 39 Cortlandt Street, is in town and will remain for a day or two. He has just come in from Natural Bridge where he is installing his system for the New York Lime Co., a detailed account of which appeared in the April Rock Products. The head of water they depended upon ran low, and they are making a temporary installation of steam, putting in an engine and boiler. The company will make a finer grade of lime for use in paper mills. Mr. Cone reports a period of quietness in the lime region at present, owing to the dullness in New York consequent upon the strikes. He says the interest taken up there in the labor question in Manhattan is very great. Mr. Cone is steadily hearing from all quarters as to his new process, from New Orleans, Toronto, Colorado, and from the most diversified points.

SYRACUSE.

SYRACUSE, N. Y., May 19.—The plaster, cement and brick industries here were never in better condition than at present. H. E. Dingley, president of the National Plaster Manufacturers' Association, said to-day that as a rule everything was sold ahead of its production. Mr. Dingley is working upon plans for the meeting of the Manufacturers' Association and is devoting his energies to promoting its interests.

An interesting event this month was the visit of A. and L. Solvay, of the family which originated and put into practical use the Solvay Process for the manufacture of sodium products. The big Solvay plants in Syracuse and Detroit are offshoots of the plant in Belgium, originated by the Solvays. The two Belgians were accompanied by E. Hulin and E. Hannson of Brussels. The party was shown through the Solvay plant here and later all went to look over the plant at Detroit. The original Solvay Brothers gave William B. Cogswell the American rights to the process. He became interested in 1876 at the Centennial Exposition at Philadelphia, where he saw some of the Solvay Brothers' exhibits.

At the annual meeting of the Empire Portland Cement Co., at Warners, the following officers were elected for the ensuing year: President, Thomas Brown, of Franklin, Pa.; secretary, A. F. Miller, of Franklin, Pa.; treasurer, General Charles Miller, of Franklin, Pa.; general manager, Charles A. Lockard, of Syracuse; directors, General Miller, Thomas Brown, J. E. French, John D. Archbold and Charles A. Lockard.

S. Edward Sticklin, representing Benedum Bros., capitalists of Cameron, W. Va., are expected here soon to make arrangements for erecting a large pottery plant in this city. It is said that it will be one of a chain of six plants forming a big pottery combination. The Benedum Bros. intend to erect six plants of from four to eight kilns each throughout the country. One will be here, one at Williamsport, Pa., one at Cameron, one at Moundsville, W. Va., while still another is to be erected at Mobile, Ala. Negotiations are under way for a sixth at some Western point. Mr. Sticklin was formerly president of the Royal China Co., of East Liverpool, Ohio. All of the business of the firm will be transacted at the home office at Cameron.

The Ryl Stone Co. has been incorporated at the State capital to operate a marble quarry on the Norton farm about a mile from Gouverneur, N. Y. The officers are: President, Frank M. Norton, New York; vice president, Fred H. Borton, Gouverneur; secretary, Ralph M. Bast, Pittsburg; treasurer, James S. Tibby, Pittsburg. The officers constitute the board of directors. Robert E. Gonderman, of Pittsburg, is superintendent. All of the officers of the company except the treasurer will live at Gouverneur. The work will commence as soon as the equipment and men can be secured. The stone is like other Gouverneur marble and there is said to be a great quantity of it. The



natural location of the quarries will facilitate the mining. The mill will be provided with ten gangs of saws for cutting the stone and will have a capacity to enable the installing of additional machines. A side track from the Rome Watertown and Ogdensburg quarries will be built.

Hurlburt & Scholton and the Gouverneur and Northern New York Marble Works have been having some difficulty with their men. A strike was instituted May 1 among the marble finishers. Some time ago a committee from the Marble Workers' Association announced that on May 1, it would demand from such companies as do finishing work, ten hours' pay for nine hours' work. The companies considered this unjust and as a result between fifty and seventy-five men went out.

John Dunfee, of this city, has the reports of engineers which he had to investigate the project of establishing a giant power plant at Fox Bridge. The plan involves the utilizing of the waters of the Salmon river and the building of a great reservoir near Fox Bridge. It is estimated that the total cost of the reservoir, power plant and piping and wiring to Syracuse would be \$2,150,000.00.

The Semet-Solvay Company, a subsidiary company to the Solvay Process Company, has entered into a contract with Senator Mark Hanna to operate the works of the Milwaukee Coke and Gas Company, of Milwaukee, and will utilize the by-products of the coke ovens for the manufacture of the various chemicals which the Semet company makes. The Semet Solvay Company has extensive coke ovens near Birmingham, Ala., at Detroit and in several other places throughout the country.

H. D. Dwight & Co., druggists, have had a floor put in by the Asbestolith Co., of New York, the first of its kind here. The material is called "asbestolith" and it is laid like cement. Great things are claimed for it.

John Dunfee, the capitalist, has returned from Cuba, bringing three large sacks of asphalt from virgin asphalt mines situated nineteen miles from Havana. His intention is to organize a company to develop these Cuban asphalt mines. If the samples pan out as well as is expected the project will be pushed.

Two new kilns have been built at the Chittengo pottery and terra cotta ware is on sale, the first made there.

## CHICAGO.

CHICAGO, ILL. May 23.—Chicago has been worrying with labor troubles of various kinds during the month, and these worries, and the aggressive manners of some of the labor unions are making the employers very tired and inspiring in them a very strong desire to fight the matter out to a finish, and settle for good and all some of the ever recurring questions that lead to conflict. Troubles have not reached the stage here that they have in New York, and it is the general hope that they will not, but there is no knowing at this writing just what will develop. One day it will look like things are clearing up, and all contentions appear to be amicably adjusted, but next day all this may be off, and the outlook may be very squally, and again the succeeding day may bring with it indications of peace again, so that things are in such an unsettled condition that there is no such thing as giving a definite outline that will promise to hold good up to the time Rock Products goes to press.

The Alaskan Mining Co. has sent from its London office one of its largest orders for machinery to the Allis-Chalmers Co., of this city. The order calls for a full equipment for a 125-stamp mill. The demand for the Gates crushers from the Allis-Chalmers Co. still continues large and they have plenty of orders for this class of material, indicating that there are lots of people going into the stone crushing business.

The Illinois Terra Cotta Co. with a factory located at Kensington has, after a struggle in which it seemed that all odds were against them, affected a settlement of the strike among the workmen, and operations are now going on as usual. This strike began last December, and has been a costly one to both sides.

All the brick yards in this vicinity have settled down to steady business and have adjusted their labor differences, and a labor schedule has been signed which is said to be satisfactory to both sides. The day men receive 10 per cent. advance, while the size of brick has been reduced from  $2\frac{3}{8} \times 3\frac{3}{8} \times 8\frac{1}{4}$  to  $2\frac{1}{4} \times 3\frac{3}{8} \times 8$  inches.

Operations have begun on the building of the new cement factory at Indiana Harbor, mentioned recently in these reports, as being projected by

a few days ago, which is the first in many years with them. Mr. Brock says that he is satisfied with arrangements if the men are willing to live up to their part of the agreement.

This city has recently let paving contracts aggregating an expenditure of nearly \$700,000.00, all outside of what is known as the "down town district." The majority of this work is to be macadam, but in one section novaculite will be laid, half the cost being paid by the Illinois Central Railroad, which has been promoting this new paving material. Most of the contracts went to John P. Agnew, who is one of the largest paving contractors in the city. The plans of the "down town" business men to have all the "down town" streets paved with asphalt so as to have uniform and clean streets is still in the air, but prospects are good for this plan to be carried out at a cost of the Illinois Steel Co.

Brock & Son, well-known brick manufacturers, made an agreement with the brick makers' union about \$1,000,000.00.

According to Mr. Joy Morton, of the International Salt Co., Chicago, has been made the greatest salt market in the United States. The price on this market for the first quarter of the year was  $35\frac{1}{2}$  cents for 280 pounds, allowing 22 cents for the price of the barrels. For 1900 the price was 91.8 cents, and since this time has steadily declined.

Mr. Pauley, of the Milwaukee Monument Co., Milwaukee, Wis., was in the city the other day ordering additional machinery for his plant at Red Granite, Wis. He reports business good, both in the monument departments and crushed granite. His company is one of the most conservative and up-to-date concerns in Wisconsin.

The genial C. L. Ireland, of the firm of France & Ireland, Dunkirk, Ohio, was in the city a few days ago and was full of good stories and jokes as usual. Almost everybody in Northwestern Ohio knows Mr. Ireland, who is one of the most popular and successful stone men in the West.

The Allis-Chalmers Co. say that they have just closed a deal to furnish a large crushing plant to the Chinese Government to take the place of a plant which was destroyed by the boxers in the late uprising over there. The plant is to be used to crush stone for railway ballast.

## Want to Make a Change.

McLeod & Embry, Pugwash, N. S.—The prospects for 1903 are very good, in fact, never were better. The best trade we have is Toronto, Can. Your favors could be bestowed upon us best by sending two or more men here to buy a part or the whole of our business, we are short of men and have too much of a load for two men to carry to a successful issue. We are short of men with experience, and must increase our plant and output, or sell all or a part of the business.

## Expect Good Business in Maryland.

The John W. Fablee Lime and Stone Co., Frederick, Md.—The outlook here is now very promising with the farmer, consequently we think there is going to be a great demand for lime during 1903. The railroads and building trade generally throughout the United States will necessarily require a great deal of stone. We feel that the demand will be great in this section.

## Car Shortage Interferes.

The Bay Shore Lime Co., Bay Shore, Mich.—The lime business is starting up very satisfactorily this season, but the car shortage interferes with us to some extent. We are looking for new kilns to replace some that have given out.

## German Request for Slag.

Consul J. White reports from Hanover, April 14, 1903, that Herr Ernst Hurtzig, of No. 17 Joseph Strasse, Hanover, desires quotations on Thomas slag, to be delivered f. o. b. Hamburg or Bremen, Germany.

The Wisconsin Graphite Co. is operating its new mill at McDill, Wis., day and night.

The Oatka Mining Co. is sinking its fourth shaft on salt property near Wyoming, N. Y.

The Canadian Salt Co., of Windsor, Ont., Canada, is preparing to build a salt plant to cost \$10,000.00.

C. Rebuier, of Davenport, Iowa, has contract to furnish 15,000 yards of sand for the Atlas Portland Cement Co., at Hannibal, Mo.

## Letters From the Trade

### A New Brick Industry.

The Mt. Vernon Press Brick Co., Mt. Vernon, Ill.—We are pushing the construction of our plant as rapidly as possible, and already have most of the material on the ground and some of the machinery en route. Our plant will have a capacity of 30,000 a day, and we expect to have our product on the Market by June 20.

### Have Been Unfairly Treated.

Spayd & Bennett, manufacturers of artificial building stone, Owensboro, Ky.—Referring to your mention of our trouble with bricklayers, will say that when we first began the manufacture of our artificial stone we proposed to the bricklayers that they lay it, to which they at first refused to do, but finally agreed to. They then reconsidered, refused to have anything to do with it, and tried to interest all other unions in the city to boycott us. This move failed. No other union would join them. They are now standing alone, and we have decided to ignore them entirely. If (as experience has proven) artificial building stone is a success, no union on the face of the earth can stop its progress. While if it is a failure it will fall of itself, hence no union need worry over the problem. We had rather our home men should work our product, but their stand has forced us to bring in masons from other towns. We do not propose to have any union say whether or not we shall do business.

### An Enterprising Canada Firm.

The Dominion Supply Co., Ltd., Ottawa, Canada.—The present season's business promises to be very brisk unless operations are hampered by strikes, and this, we think, will be avoided. We are now erecting new warehouses and new offices which we expect to move into the first of May, and then we will be the best equipped concern in Canada handling contractors' supplies. We have our own steam tugs, barges, docks, teams, in fact, a complete and unexcelled equipment for handling the business in all directions. We handle cement, lime, brick, stone and structural iron, plaster, lumber, in short, a full line of building material, and are prepared to furnish all kinds of material for buildings from the foundation stone to the chimney cap. We make it a point to go after all kinds of business, nothing being too small or too great to receive our best attention, and our business is continually growing. We are open to accept the agency of certain American supplies in the building lines, but no one not meaning business need apply, but we have equal facilities for those desiring to push their product in Canada.

### An Arkansas Opportunity.

Ambrose W. Estes & Co., Yellville, Ark.—Replying to your inquiry in regard to our marble properties, would say that our marble lands are undeveloped, but we have both black and gray marble. We need marble men who understand the business to take hold of a proposition here. The Iron Mountain Railroad is now building through this country, so there is a great opportunity here for mining zinc as well as quarrying marble.

### Crushed Stone Business Increasing.

L. Bales & Son, LaGrange, Ill.—We are opening up a new limestone quarry about a mile south of this place. As to the business of the past season, our output was about 25 per cent. more in crushed stone than the previous year, and we expect to go it 50 per cent. better this year. Our specialty is crushed stone for road work and concrete.

### A Lively Demand for Lime.

J. W. Stimmel, Walkersville, Md.—I am using the latest improved draw kilns that I know of and prospects for a large output were never better. Had it not been for the high prices of coal and the uncertainty of supply I could not have met the demand.



# Quarries.

## Blasts and Blasting.

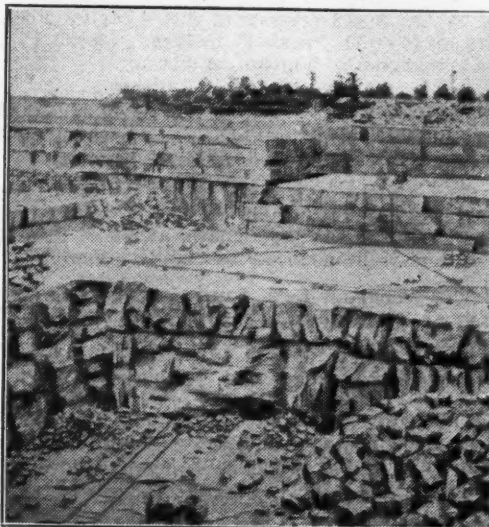
Last December we had an illustration of an interesting blast of somewhat large proportions set off by the Seneca White Lime Co., Fostoria, Ohio, which loosened up about 1,000 tons of stone. The shot in that instance consisted of thirty holes, which were drilled back ten feet from the face of the ledge, three feet apart and fourteen feet deep, and loaded with about six pounds of dynamite each. Now, we have before us an interesting pamphlet gotten out by the Miami Powder Co., Xenia, Ohio, in which is illustrated a large discharge of powder which we understand was set off at Springfield, though details of this blast are not at hand. It is not so much the details we are after, however, but the ideas suggested in order that the trade may learn something by a discussion of the subject of blasting in general.

There are undoubtedly many points about preparing blasts and sizes of blasts to use for certain purposes, and the kind of explosive to use under certain conditions, and numberless other things about blasting that the individual users of explosives discover from time to time, and we are very anxious to have you tell us about these things. If you have discovered a point and will tell us about it, it will encourage the other fellow to tell something he has discovered, and before we get through every body will have learned something. Just to start the ball rolling, we are going to give you a few general pointers from the pamphlet referred to above, and we hope that the experts in the business who have discovered points about blasting will take the subject up and tell us all they know about it.

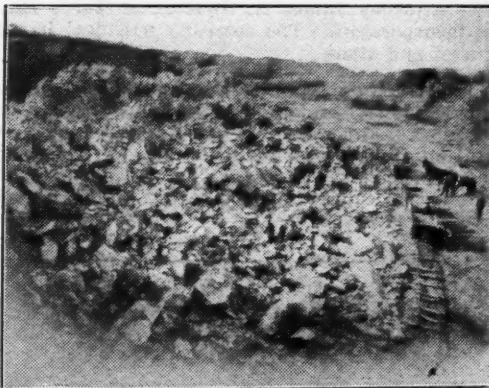
In the first place, there is evidently a mistaken idea in the minds of some in regard to handling dynamite, and while as a rule it is not as dangerous to transport and handle dynamite as some would have us believe, sometimes the so-called chimney-corner stories are plainly at fault, especially that one in regard to it being impossible to explode dynamite with fire. It is a fact that it may be burned without exploding, but the more you heat it the more sensitive it becomes, and the lighter the shock required to explode it, and it will naturally explode when heated to 360 degrees Fahrenheit. In fact, it is taken as a general rule that any method of heating dynamite to a temperature above the boiling water is dangerous. This precaution is added here because it is sometimes necessary to thaw dynamite before using, as it freezes very easily, becoming frozen at 42 degrees F. The worst plan of all for thawing dynamite is to thaw it by fire, and another dangerous practice is to place it in a pail or kettle filled with water and set it over the fire. Several serious accidents being recorded against this practice. The safer method is to place the dynamite in a tin vessel and this vessel in a larger one containing hot water, pretty much as one would do to melt glue, but a better plan where blasting is done continuously is to have a small house fitted with a steam radiator.

When it comes to the use of dynamite in a general way, there is a rule given which says that the hole should be bored back from the face of the rock about twice as far as is used for common blasting powder; in other words, a distance equal to the depth of the holes. Then make the distance between the holes about one and a half times the distance they are back from the face. Of course this is just a general rule and the nature of the work at hand frequently requires deviations, but a few blasts will soon demonstrate enough to suggest whatever changes are necessary for this rule. When it comes to charging your holes, always see that the cartridges are soft, for if they are frozen they will not explode properly. It is said that the best charge is secured by removing the wrapper or splitting it with a knife so that it will expand, then pressing the dynamite in the hole lightly so that it will expand and fill the hole thoroughly. This of course applies only in dry blasts, for if there is water in the holes it is best to leave the wrapper undisturbed.

In exploding dynamite, it has been demonstrated often that it is foolish to undertake to explode it with anything but a cap or detonator of some kind. One cap is sufficient, however, even though you may be using two or more rolls of dynamite in the same place, but when the last dynamite is put in a piece of a roll two or three inches long with cap attached should be pressed firmly in the top of the charge. Blasting caps, as all of you know, are made in various strengths, from single to quintuple force. It is referred to here simply to point out that it is foolish economy to buy a weak cap to save a fraction in the original cost, because it is in many cases an explosion without returns, and it is much better to invest a fraction more than to run any risk in this line. In connection with caps, come fuses and safety-fuses, and there is a world that might be said about the kinds to use, the kinds not to use, and how to use them, and when to use them, and we would be glad to have those in the trade, both manufacturers of these materials and the users of them, put their thinkers to work and tell us all about them.



This Picture Gives Some Pointers About Arranging Holes, Connecting Wires, etc., for Blasting.



The Effect of a Large Blast.

An illustration given herewith explains to some extent the method of placing holes and arranging wires when using electricity for discharging blasts, to which may be added the following from the pamphlet referred to above:

"Place the electrical fuses in the center of the explosive to be used and let the wires extend some ten or twelve inches above the mouth of the loaded hole. Tamp the holes carefully with dry sand or fine earth. Care should be taken in tamping that the insulation on the wires be not cut or injured, since no portion of bare wire or bare joints should ever be brought into contact with the ground; especially is this true if the ground be wet. Many blasts have failed by allowing bare connections to come into contact with the ground, and it is sometimes advisable to cover the joints with insulating tape, described on page 46.

"When all the holes to be fired at one time are loaded and tamped, separate the ends of the two wires in each hole, and, by the use of connecting wire, join one wire of the first hole with one of the second, the remaining free wire of the second with one of the third, and so on to the last hole,

making a continuous connection between the holes, and leaving a fragment at each end hole.

"Connecting wire should be of the same size as the exploder wires. Leading wire should be at least twice as large."

## Want a Drill.

E. H. Dorman & Hess, Prairie Grove, Ark.—We do a small amount of quarrying for bases, and we want to know if we can get a small drill somewhere that will be practicable in drilling for wedging out bases from the ledge. Our stone is in ledges 2½ feet thick and up, and we have to drill holes about four inches apart, and 14 to 18 inches deep to do a good job of splitting. Can you advise the Chicago drill spoken of in the last issue of your paper. We only do a small business.

## Business is Rushing at Farley.

P. A. Miles, Farley, Iowa.—Business is rushing here, but I do not contemplate enlarging my quarry equipments, because I really have all the equipments required for this locality.

## Changes at Olive Hill, Ky.

Highland Stone Co., Olive Hill, Ky.—The Chesapeake Stone Co. has leased their quarry and plant to the Highland Stone Co. for the term of two years, and it is being run. We are getting out from 400 to 500 tons a day. We have a very hard, white limestone and use a 7½ Gates breaker with a No. 5 breaker. Last year we ran out 80,000 cubic yards and expect to go over 100,000 this year. We do our drilling with compressed air; in fact, we have a fine quarry and a good plant with five years work.

## Get Out Lots of Engine Foundations.

Mr. J. T. Wyatt, Salisbury, N. C.—The granite that I am now shipping is used for street curbing. There is a great demand for granite for engine foundation stones to go under engines of the new cotton mills in the South. We turn out a good many every year and we have more orders now than we can fill. Flat cars have been very scarce this spring in which to move our shipments.

## Shows a Healthy Condition.

V. A. Biggs, Iowa Falls, Iowa.—The stone trade in this locality is gaining a little, at least, during the past two months. The prospects for crops in this vicinity are looking very good at present, so the prospects for fall trade in the building line is good. I am much pleased with Rock Products. It keeps the dealers, and trade in touch with each other.

## Will Add Lime Kilns Next Year.

The Bellefontaine Stone and Lime Co., Bellefontaine, Ohio.—We are crowded with orders, but are having trouble to get cars from railway company. We operate two quarries and have three Gates crushers, a No. 4, No. 5 and No. 6, besides working building stone. We do not burn lime, but hope to add up-to-date kilns another year.

Reports from Nanaimo, B. C., Canada, state that Mr. Joseph Emery, of San Francisco, Cal., has been at that place during the month arranging to re-open the New Castle Island quarries, from which 33 years ago he took out stone to build the mint at San Francisco. Mr. Emery is opening up the quarry to get out stone for a large building contract which he has on hand.

The Canton Marble Quarries have been incorporated at Canton, N. Y., with a capital stock of \$120,000.00. The incorporators are: E. E. Stevens, Mrs. L. W. Russell and C. W. Hartridge. The company is to take over what is known as the Stevens quarry, and it is said that arrangements have been made to construct a branch railroad to the quarries.

In ROCK PRODUCTS for May, mention was made of Sam Pickles, near Jackson, Mich., buying the quarry of the Ionia Stone Co., but it seems our information was jumbled a little. The facts of the matter are the Ionia Stone Co., Ltd., of Jackson, Mich., have purchased the quarries formerly owned by the late C. S. Marsh, of Lyons, Mich. The company has a capital stock of \$50,000.00, all paid in. The officers are: Samuel Pickles, Chas. Platts, J. E. Barrett and John W. Miner, with headquarters at Jackson, Mich.



John Schmidt & Co., of St. Peter, Minn., have opened up a new quarry.

Mr. William Adams and David Wilson are opening up a quarry at Alton, Ill.

Davis & Mayne, operating quarries at Blue Springs, Neb., are getting a good share of orders for stone.

The Washington Marble Co. has purchased the Joseph Eby Quarry at Eakles Mills, Md., and will operate same.

The Coneville Quarry Co., Coneville, Pa., has contracts for flagstone walks in some of the surrounding towns.

Roadmaster George Harper, of Billings, Mont., has opened up the Northern Pacific Quarry near Springdale, Mont.

The Standard Group Marble Co., Spokane, Wash., is preparing to begin developments of its quarry property near Northport.

The City of East Stroudsburg, Pa., has decided to purchase and operate a stone quarry to get out stone for municipal purposes.

Gaynor Bros., Sandusky, Ohio, have been pushing operations quite extensively in the Johnson Island stone quarries during the month.

The Washington Marble Co., of New York, of which L. C. Rines is president, and Thomas F. Lynch, superintendent, is said to have secured option on a marble quarry near Benevera, Md.

Superintendent C. E. Nason, who has charge of the quarrying operations of the Porcelain Clay and Marble Co., Hot Springs, S. D., is concentrating his work on the development of their mica deposits.

The Hudson & Chester Granite Co. will spend from \$10,000.00 to \$12,000.00 building tramways and improving the equipment of the quarries at Chester, Mass.

Cyr Bros., Hartland, Me., are getting out two or three car loads of granite a day, and according to reports from up there, they are enjoying an excellent business.

The Denver and Rio Grande Railway Co. is laying a branch road from Beaver Creek, Colo., to what is known as the Fulmer Ranch Rock Quarries, where the railroad will open up quarries to get out stone for use on the road.

The South San Francisco Quarry Co. has been incorporated at San Francisco, Cal., with a capital stock of \$50,000.00. The incorporators are: Maurice Keatinge, A. S. Jones, L. Leonard, F. H. Willis and W. J. Morton, of San Francisco.

The Canton Marble Quarries Co. has been incorporated at Glen Falls, N. Y., with a capital stock of \$120,000.00. The incorporators are: E. E. Stevens, Mrs. L. W. Russell, Robert Russell, Lawrence Russell, and C. W. Hartridge.

It is reported that blue marble has been found in the Gladerun blue Stone Quarries, Gladerun, Pa., owned by George Traub and Peter Hasenfratz. Whether or not there is sufficient quantity to justify working, we are not advised at this time.

The Jones Bros. Co. has been organized at Bangor, Me., to quarry and manufacture stone with a capital stock of \$250,000.00. The officers of the company are: Edgar A. Hubbard, of Biddeford, president; Henry I. Lord, of Biddeford, treasurer.

Norcross Bros., Milford, Mass., has been getting out stone for the base of a statue of General Lafayette, which is to be built at Paris, France, out of Milford granite. They also have a contract on hand to furnish granite for a \$500,000.00 job at Groton, Conn.

The Fox River Supply Co., which was recently organized to take over and conduct the stone quarries of L. P. Barker & Sons, Aurora, Ill., seems to have failed to make good the title and the property has reverted back to Barker & Sons, who are now operating the quarry.

The Ryl Stone Co., of Gouverneur, N. Y., has been incorporated with a capital stock of \$115,000.00, to quarry stone. The incorporators are: J. A. McAteer and R. N. Bast, of Pittsburg; R. C. Gonderman, of Canonsburg; James A. Tibbey, of Sharpsburg and F. M. Morton, of New York City.

F. I. Hall and Fred Hall have bought an interest in the business of the Electric Stone Quarry Co., Belvidere, Ill., and Mr. Fred Hall will act as manager of the concern. This company opened up quarries a year ago, and seems to be enjoying a good business and have bright prospects ahead.

## Sand.

The New Lexington Sand Co. is one of the new enterprises of Zanesville, Ohio, and a sand pit has been opened up near that town.

The Berkeley Springs (W. Va.) White Sand Co. is enlarging its equipment and increasing its capacity from 100 to 400 tons a day.

The American Sand Co., Augusta, Me., has been organized to quarry, manufacture and deal in stone, sand, clay, brick, tile, etc. Capital stock \$60,000.00.

The Southampton Sand and Gravel Co., Sayville, N. Y., has been incorporated with a capital stock of \$15,000.00, with Frank P. Hoffman, Joseph P. Lee and Reginald E. Wigham as directors.

The Capital Sand Co. has been incorporated at Washington, D. C., with a capital stock of \$50,000.00. The incorporators are: James M. Miller, Harry C. C. Stiles, and John O. Johnson.

The Wooster Sand Co., Wooster, Ohio, began shipping its first sand to the Waterloo Glass Works during the past month, and it is said that the sand is pronounced an excellent quality.

The Woodland Lake Sand Co. has been organized at Youngstown, Ohio, to deal in sand. The company is composed of David Evans, E. L. Gleason and others, and owns extensive deposits of sand at Ashtabula Harbor, Lake Erie.

The Ohio Rock Sand Co. has been organized at Youngstown, Ohio, to operate sand quarries at Dundee, Ohio. The company has a capital stock of \$10,000.00. The officers are: J. W. Kernz, president; N. S. Lewis, secretary-treasurer and A. C. Lucel, vice president and general manager.

The Interstate Sand and Gravel Co. has been incorporated at Terre Haute, Ind., with a capital stock of \$10,000.00, with Frank T. O'Hair, of Paris, Ill., Bertis McCormick, of the First National Bank, and Attorney James H. Swango, of Terre Haute, as incorporators. The company will deal in sand, gravel and stone.

Reports from Hannibal, Mo., state that the Hannibal Material and Supply Co., of St. Louis, Mo., which is taking gravel out of the Mississippi river at Hannibal, is employing a force of seventy-five men, and has two large dredge boats in operation. This report states that their expenses are running about \$1,000.00 a week.

The Holmesville Sand Co. has been incorporated at Millersburg, Ohio, with a capital stock of \$10,000.00. The incorporators are: P. M. Kidd, W. E. Palmer, R. Henderson, D. G. Hartman and W. Bowers.

George Carlon, Oskaloosa, Iowa, has opened up a new sand mine in the Des Moines river at Edyville during the past month, and is taking out quite a quantity for use in constructing cement walks.

There has been a changing of heads in the personnel of the Potomac White Sand Co., which has a plant at Green Springs, W. Va. Mr. Thomas Hobbs, who was president, sold out recently, and Thomas T. Boswell, president, of the Merchants Coal Co., of Baltimore, has been elected president of the Potomac White Sand Co.

The Mound City Sand and Gravel Co., of St. Louis, Mo., has a fleet of dredge boats at Hannibal, Mo., to take out gravel for the Burlington Railway for which they have contracted to furnish several thousand cars. This company recently installed machinery for transferring the sand and gravel from the barges to the cars to cost \$11,000.00.

### Have a New Cableway.

COXVILLE, IND., May 5.—Complying with your request for news, will say that while our plant is entirely new, we formerly used tracks and cars to handle our product, but have just had installed by the Eagle Foundry and Machine Co., of Terre Haute, Ind., a cableway, which is not only proving satisfactory, but is a great labor saver.

HOOSIER GLASS SAND CO.

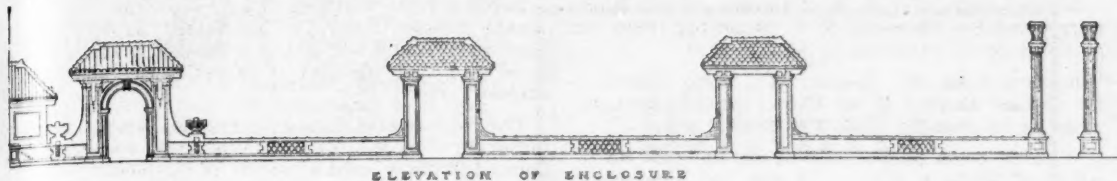
### A Modern Sand Plant.

The Henry Martin Brick Machinery Co., Lancaster, Pa., recently completed a modern sand plant for the Susquehanna Silica Sand Co., of Columbia, Pa., at their new works at Chickies, Pa., which we are pleased at being able to illustrate this month, because it will give a view of a strictly modern sand plant. The equipment of the plant consists of a nine-foot dry pan with screening attachment, a 9x15-inch rock crusher of the "Favorite" pattern which is used for breaking up raw material before it is fed into the dry pan. There is also a five-foot pan for special work, and in addition to these machines, there is a full complement of elevators, sizing screens, storage bins, as well as power equipment. The plant has a daily output of 150 tons with facilities for doubling this amount if necessary. The new concern appears to start out with fine business prospects, for silica sand of a high grade is not the most plentiful of rock products, and the sand they have is said to analyze upward of 95 per cent. pure silica. They ought to be able to find a healthy market for their product, and their equipment, which the Henry Martin Brick Machinery Co. furnished throughout, is one of which the builders are proud.



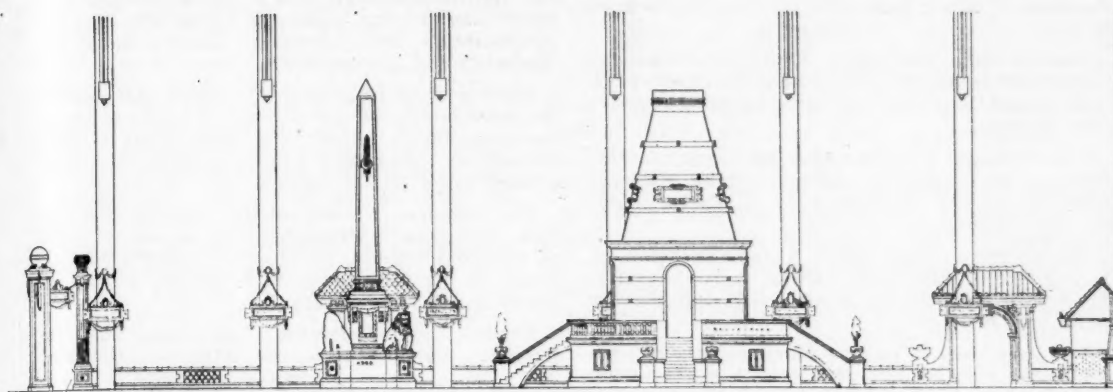
PLANT OF THE SUSQUEHANNA SILICA SAND CO. CHICKIES, PA.



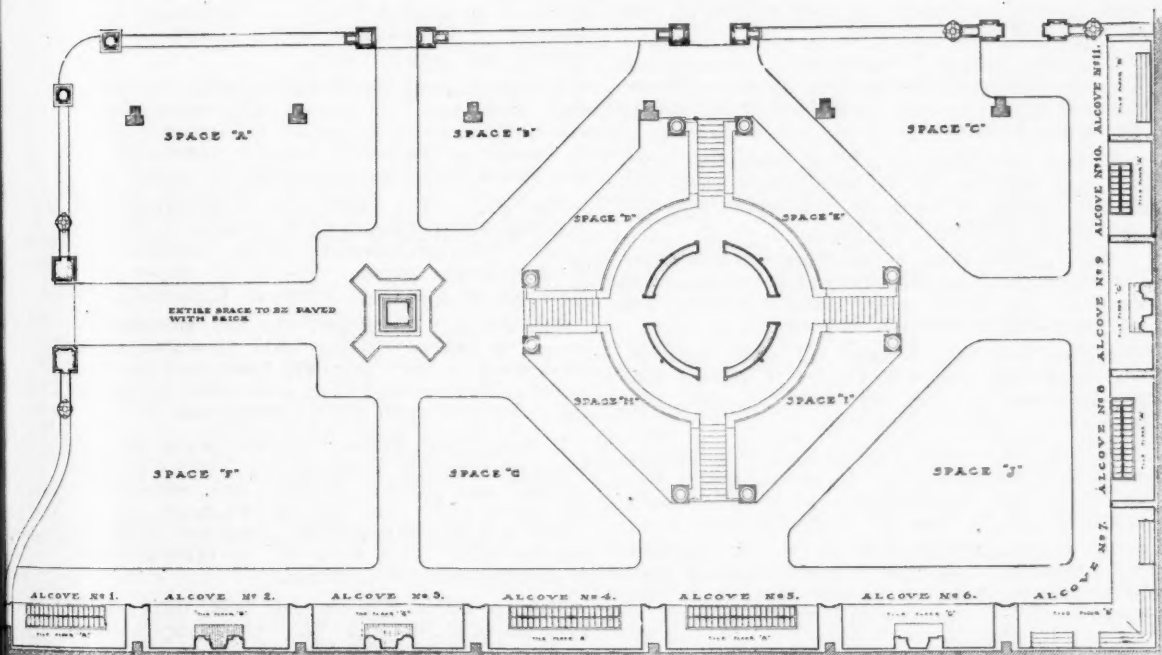


ELEVATION OF ENCLOSURE

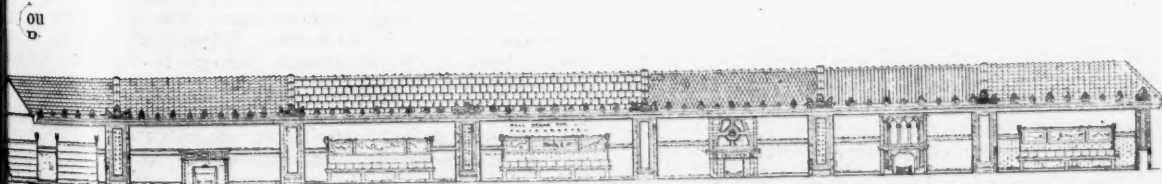
off  
30-



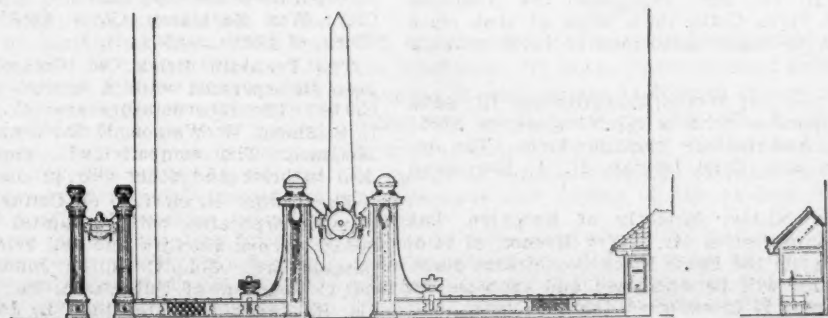
INTERIOR ELEVATION



PLAN  
SCALE



ELEVATION OF ALCOVES



END ELEVATION

SECTION

# Clay.

## Plan and Features of the Proposed Clay Exhibit at St. Louis.

St. Louis, Mo., April 10.—The preliminary designs for the Special Clay Industry Exhibit drawn by Mauran, Russell & Garden, the St. Louis representatives of Shepley, Rutan & Coolidge, the eminent architects, at the request of the World's Fair Committee of the National Brickmakers' Association, are herewith enclosed. These plans are the result of the co-operation of experts representing different branches of the clay industry.

The location of this complete exhibit will be in the eastern corner of the Mining Building, where about 20,000 square feet has been allotted to the clay industry.

While this exposition follows the usual precedent of classifying the different branches of the clay industry in several buildings, this exhibit in the Mining Building will comprise all kinds of clays, clay products, and models of clay machinery, so that it will be a unit or complete exponent of the clay industry. This exhibit will include:

1. Samples of clay, shales, kaolins, spar, etc., in uniform glass bottles, with labels giving location, analysis and physical properties.
2. Photographs, maps and charts showing location and extent of clay deposits, methods of winning, and transportation.
3. Photographs, samples and models of machines for washing, grinding, pugging, moulding, pressing, turning, jigging and glazing of clays, etc.
4. Photographs, models, etc., illustrating driers and kilns.
5. Samples of clay products, especially in actual use, and photographs of clay plants and clay products.

As this exhibit is to represent the nation's clay resources, it is hoped that the leading producers and prominent manufacturers of the principal centers will heartily support this initial effort to unite all the branches of this diversified industry into one comprehensive exhibit. For such a complete exhibit, designed on artistic lines, will be more attractive, much stronger, and far more impressive than any individual exhibit, and will greatly assist in educating the public to the variety, richness and superiority of American clay products, and the importance of this industry.

In the accompanying reprint of the architect's designs, it will be noted that wide aisles individualize this exhibit, and that it is enclosed within a low wall of brick and terra cotta. The five entrances to the exhibit will be beautified with handsome brick and terra cotta designs, and a beautiful obelisk in terra cotta, with a base in bold relief, will be a very attractive, central feature. The prominent object of the exhibit will be a full sized kiln, reproduced upon the lines of the classic potters design. The kiln is used as the dominant feature, as it is not only symbolic of the industry, but it will be one of the most conspicuous objects in the building, which through curiosity and interest, will strongly appeal to and attract the public. Alcoves along the side walls give an admirable opportunity to illustrate the great variety in color and design, in actual use, of roofing tile, encaustic and art tiles, enamelled brick, press brick, terra cotta and sanitary ware, as wainscoting, friezes, fireplaces, flooring, etc. The alcoves will be decorated with ceramic ware, art pottery and photographs. The partitions of the alcoves will consist of hollow ware, and the aisles will be paved with paving brick.

Exhibitors are invited to select and install one or more of these structural features as part of their exhibit, besides taking floor space. Appropriate cards will be allowed on the structural exhibits, as also references to other exhibits that may be made in other buildings.

While it is desired that each exhibitor will personally install his exhibit, especially if it includes structural features, exhibits will be installed un-



der the supervision of the architects, when desired, at the expense of the exhibitor.

There are six alcoves in the loggia immediately adjoining the clay exhibit, on the outside of the building, that are available to clay exhibitors who desire additional room. These alcoves range from 26 to 30 feet in length, by 6 ft. wide and 12 ft. high, and are protected from the weather by the projecting roof of the building.

There will be a general office provided for the exhibitors, and sales will be permitted, provided no deliveries are made on the premises, without paying concession charges.

The Exposition makes no charge for space whatever, nor for limited power and light. But the committee in arranging for the exhibit deemed it wise to obtain the services of the best architects, in order to secure a design and installation that would be a credit to the industry. It was also felt that a competent clay expert should be maintained to take charge and care for the exhibit during the Exposition. As the Exposition only cleans the aisles but not the exhibits, it will be found more convenient and economical to thus jointly maintain the individual exhibits. The committee estimates that the fees of the architects and the expenses of caring for the exhibits after their installation will aggregate about thirty cents per square foot of space occupied. The chief of the Mines Department, Mr. J. A. Holmes, has consented to act with the committee, as trustee for the receipt and disbursement of this fund until relieved by the selection of some person for this duty by the exhibitors at the opening of the Exposition. Payments to cover these expenses should be forwarded to J. A. Holmes, Trustee, Mines Department, World's Fair, St. Louis, who will give receipts therefor, and an itemized statement of receipts and expenditures on closing the account. One-third or 10c per square foot is payable on acceptance of application, one-third when exhibit is shipped, and the balance on July 1, 1904. If there is an unexpended balance at the close of the Exposition, it will be returned to the exhibitors.

Detail drawings giving the design and color scheme will be furnished by the architects for the structural features, or applicants can submit their own designs, if preferred, which, if approved by the committee, will be accepted as a substitute.

A general application blank for filing with the general office, and a special clay industry blank for working out the details of this exhibit will be furnished any one interested, and all clayworkers are invited to take an interest in this work.

H. A. WHEELER,  
Chairman of Clay Committee,  
721 Olive Street, St. Louis, Mo.

The Schnell Brick Co., LaCrosse, Wis., began work at its yards recently.

The Clarion Clay Co., Wilmington, Del., has been incorporated with a capital stock of \$200,000.00.

The Union Brick Co., of Cheyenne, Wyoming, has been incorporated with a capital stock of \$100,000.00.

The Black Hills Brick and Manufacturing Co., has been incorporated at Sturgis, S. D., with a capital stock of \$100,000.00.

The Hillside Brick Manufacturing Co., of Danville, Pa., has been incorporated with a capital stock of \$500,000.00.

The American Brick and Tile Co., Mason City, Iowa, are reported as building a fine 100 feet smoke stack.

The plant of W. S. Dickey Clay Manufacturing Co., Kansas City, Mo., has begun work again at full capacity.

The new brick plant of the Cement Products Co., Wilmington, Del., will soon begin operations with a capacity of 100,000 brick a day.

John Dawson & Co., Fremont, Iowa, have started up their brick and tile factory and are now running full force.

Reports from Des Moines, Iowa, state that the Horsley Brickyard at Lamont, Iowa, will be operated this season.

The Cambridge Brick and Tile Co., Cambridge, Iowa, have their brick plant about completed, and expect to soon commence operations.

Reports from Ithaca, N. Y., state that the Ithaca Red Brick and Tile Co., has completed its plant and expects to begin operations soon.

Reports state that S. W. Hannum, of the Hannum Brick Co., Massena, N. Y., is getting ready to open his brick yard and is enlarging it.

Reports from Mt. Savage, Md., state that the Mt. Savage Enamel Brick Works contemplates increasing its capacity from 600 to 1,200 a day.

Work is being pushed rapidly on the new brick works of Wells & Elliott, Clinton, Ind., and they hope to be making brick by the first of June.

Reports from Elkton, Md., state that the brick yards at Perryville have been leased by Murry Cameron, of North East, who will operate them in future.

Reports from Davenport, Iowa, state that the Lehigh Brick and Tile Works has resumed operations after being tied up by a strike for about eight months.

The Scanling Fire-Clay Co., has been incorporated at St. Louis, Mo., with a capital stock of \$3,000.00, by A. J. Hutchinson, W. F. Martin, R. H. Orr and others.

The Dennings Point Brick Works, Newburg, N. Y., has begun operations, running at full capacity. They turn out 132,000 brick daily and employ about 120 men.

The American Brick and Machine Co., Detroit, Mich., has been incorporated with a capital stock of \$250,000.00, by F. C. Chamberlain, E. W. Rider and W. H. Miller.

Reports state that a new brick plant is to be organized at Lexington, Ky. Mr. F. H. Halett states that the company when organized will have a capital stock of \$15,000.00.

G. N. Rich, of North Adams, Mass., contemplates opening up a brick yard on his property at Clarksburg soon, where a large deposit of excellent clay was recently discovered.

Reports from Faribault, Minn., state that work has been resumed at the Kaul Brick yard, and if the weather is favorable, this season's output will exceed 1,000,000 brick.

The big brick plant of the Texas Pressed Brick Co., Wortham, Tex., has resumed operations after being idle for several months, and is now turning out 20,000 to 30,000 brick daily.

Reports from North East, Md., state that the Maryland Brick and Tile Co., of Baltimore, Md., has purchased the Maryland Clay Co., plant, and will operate same at that place.

The Ohio Brick and Clay Co., has been incorporated at Bolivar, Ohio, with a capital stock of \$50,000.00, by Louis J. Beuster, Ferdinand Straub, Jacob Grater, O. C. Yant and F. P. Beucler.

The Longview Pressed Brick Co., of Longview, Tex., has been incorporated with a capital stock of \$20,000.00. The incorporators are: J. R. Castleberry, R. E. Coleman and R. F. Echols.

The Bertschy & Shoemaker Brick Co., Grand Haven, Mich., are reported as putting up a large crusher for pulverizing clay, which it is said will materially improve the quality of their brick.

The Flower City Brick Co., has been incorporated at Rochester, N. Y., with a capital stock of \$1,000.00, with Valentine F. Whitmore, W. H. H. Rogers, John J. L. Freiderich and Henry E. Ball.

The Standard Brick Co., at Huntsville, Ala., has been reorganized with a capital stock of \$30,000.00, with T. W. Pratt, president; W. T. Miller, vice president and James R. Boyd, treasurer.

The Kingsland Brick Co., New York City, has been incorporated with a capital stock of \$60,000.00. The directors are: Michael Dempsey, Frank Williams Schmidt and Melvin Moore, New York.

Reports state that the International Trust Co., Plaistow, N. H., has purchased the Plaistow Brick and Terra Cotta Co.'s plant at that place and expect to begin operations at brick making at once.

The Banner Clay Works, Edwardsville, Ill., have been incorporated with a capital stock of \$100,000.00, to manufacture clay products. The incorporators are: Oriel Dunlap, H. A. Hartmann and others.

Dr. John Nisley, formerly of Brooklyn, has bought the interest of Mr. Harry Keener, of Middletown, Pa., in the Shale Brick Co., of that place. The company will be organized and increase its capital stock. It is expected that the plant will be enlarged.

Reports from Wathena, Kan., state that the St. Joseph Pressed Brick Co. has leased the Rock Island quarry, and will put in a brick making plant. It is said that the clay is exceptionally good for pressed brick.

The Whitewater Tile and Pressed Brick Manufacturing Co., Whitewater, Wis., has been incorporated with a capital stock of \$20,000.00. The incorporators are: George Gillen, Nim Johnson and William A. Hurlbut.

The Flour City Brick Co., Minneapolis, Minn., has been incorporated with a capital stock of \$50,000.00, and the firm began operations May 10. The incorporators are: James R. Farnham, Frank Demming and Joseph Guy.

Reports from Shamokin, Pa., state that besides the manufacture of house stone, the Schwyz Manufacturing Co. is fitting up a brick plant at their Millersburg plant, and will in a short time have pressed brick on the market.

The Bonham Pressed Brick Co., of Bonham, Tex., has been incorporated with a capital stock of \$60,000.00, by Ed. D. Steger, V. Steger, of Bonham; D. H. Scott and H. S. Bettes, and B. J. Baldwin, of Paris, Texas.

Reports from Galveston, Tex., state that the Gonzales Sunset Brick and Tile Co., Gonzales, Tex., has received a contract for over 1,000,000 brick to be used in building the five-store G. Bedell Moore block in San Antonio.

The Meridian Brick Co., Meridian, Ada County, Ida., has been incorporated with a capital stock of \$2,000.00, by Homer Tolleth, C. Hedges, T. J. McKee, A. S. Hadley and N. W. Brown to manufacture and deal in brick.

The Springfield Clay Manufacturing Co., Springfield, Ohio, has been incorporated with a capital stock of \$15,000.00, by Horace L. Heistand, George L. Patterson, Charles W. Schmidt, George H. Melten, James P. Goodwin and John M. Good.

The Plate Glass Brick Co., Wilmington, Del., has been incorporated with a capital stock of \$150,000.00. The incorporators of the company are: M. J. Murphy, Akron, Ohio; C. C. Sigler, H. I. Morningstar and E. F. Donahue, Cleveland, Ohio.

The Hancock Brick and Tile Co., successors to Dorney & Harris, Findlay, Ohio, have finished the brick work on their large dry house, and the brick work will be commenced in a few days on the machinery shed, which will be 60x40 feet.

Reports from Zanesville, Ohio, state that the board of directors of the McCoy Pottery Co., met recently and decided to erect new additions to the north and south end of the burnt portion, which is now being erected. Two new kilns will also be built. This work will be rapidly pushed to completion.

The La Bolza Tile Co. has been incorporated with offices at Smeltzer, Cal., with a capital stock of \$25,000.00. The directors of the company are: George F. Hoyt, of Santa Ana; W. T. Clark, John H. Edwards, J. T. Shaffer, and George W. Moore, all of Smeltzer.

The Buffalo Clay Manufacturing Co., Buffalo, N. Y., has been incorporated with a capital stock of \$9,000.00, to make earthenware vessels. The directors are: G. H. Richmond, Edward S. Richmond, John R. H. Richmond, George H. Gilman and Maxwell S. Wheeler.

Reports from Harlan, Iowa, state that the two brick yards of that place have consolidated and will be incorporated. The officers will be W. M. Lana, president; A. P. Sorenson, vice president; Louis Smith, secretary-treasurer, and Fred Stevens, assistant secretary.

The South Amboy Terra Cotta Co., of South Amboy, N. J., has been incorporated to manufacture tile, etc., with a capital stock of \$50,000.00. The incorporators are: Bernhard A. Buge, New York City; Wm. Mathiasen, Chris Mathiasen, Peter C. Olsen, of Perth Amboy, N. J.

The Franklin Brick Co., Columbus Ohio, has been incorporated with a capital stock of \$100,000.00. The incorporators are: C. A. McAllister, L. S. Smith, W. Watson, E. Doddington and D. W. McGrath. The company will manufacture and deal in brick and other clay products.

The Colfax Brick Co., of Colfax, W. Va., has been incorporated with a capital stock of \$50,000.00, to manufacture and sell brick. The incorporators are: John C. Fulton, John P. Conn, Samuel C. Johnson, of Uniontown, Pa., Jacob G. Harris, Balsinger, Pa., and John L. Johnson, of Colfax, W. Va.



The Mississippi Brick Co., Jackson, Miss., has been organized to manufacture sand brick after a German patent process. The capacity of the plant will be 20,000 brick a day. The officers of the company are: Louis H. Zehnider, president and manager; W. J. McGee, vice president; F. B. Neal, secretary and A. Zehnider, treasurer.

The Cumberland Granite Brick Co., Cumberland, Md., have been incorporated with a capital stock of \$30,000.00, to manufacture brick and tile. The officers of the company are: W. C. White, president; C. L. Bretz, vice president; J. C. Shaffer, treasurer, and Henry Paupe, manager. This plant has a capacity of 10,000 brick a day.

Reports from Kokomo, Ind., state that the Pittsburgh Plate Glass Co., of that place are building a factory for the manufacture of plain and fancy pressed brick. The plant will have a capacity of 40,000 to 50,000 brick a day. It is also stated that if this factory proves a success, they will erect similar mills at each of the factories belonging to this firm.

The Southern Hydraulic Brick Co., Charleston, S. C., has bought the property known as Vanderhorst wharf as a site for their new plant, and will soon begin work on it. The factory will at first have a limited capacity of 20,000 brick a day, but this capacity will be increased, and the plant will eventually become one of the most important in the South. The officers of the company are: E. H. Jahnz, president; B. F. Kramer, vice president; A. F. C. Cramer, secretary-treasurer, and J. C. D. Shroeder solicitor.

The stockholders of the South Bend Brick Co., South Bend, Ind., met recently and completed the organization of its company by electing the following officers: E. A. Morse, president and manager; Del C. Leer, vice president; L. C. Whitcomb, secretary-treasurer. The company is capitalized at \$20,000.00. Their office will be in the Home Telephone Company's building, on East Colfax Avenue. Mr. Morse, the president and manager of the company, is a well known business man, who has had ten years' experience, in the brick business.

The Utica Pressed Brick Co., Utica, N. Y., has been incorporated with a capital stock of \$500,000.00, to manufacture brick. The company owns about 300 acres of land, and the whole tract is said to be underlaid with a very fine quality of clay for making pressed brick, tile and terra cotta work. The machinery for this plant has been ordered from the Boyd Pressed Brick Machinery Co., of Chicago, Ill., and will be installed in the plant at a cost of \$150,000.00 to \$200,000.00, including drying sheds, kilns, etc. The company expects to begin operations in a few months.

The plant of the Columbus Pipe Co., Columbus, Ohio, has been taken over by the Capital City Brick Co. This property includes 200 acres of land, buildings, kilns and machinery, located at North Columbus. It will be converted into a modern equipped brick plant, with a daily capacity of 140,000 shale hollow and face bricks. The railroads are to be extended to the works, and the brick will be burned by gas manufactured at the plant, which will be lighted by electricity. The output of the plant will be handled by the Union Brick and Supply Co.

#### German Brick Sizes.

On the subject of alterations of the standard size of German brick our English contemporary, the *Stone Trades Journal*, says: For some time past there has been considerable agitation among the German building fraternity that the present size of the bricks is not conducive to the impressive appearance of memorial buildings in general and churches in particular, and that a reversion to the size used during the Middle Ages would add to the dignity and beauty of, besides lending a more imposing and worthier effect to these edifices. The dimensions desired were as follows: length, 11 1/4 in., breadth, 5 1/4 in., thickness, 3 1/2 in. The Brick-makers' Association gave the matter their careful consideration, but decided that the present German standard size, 9 1/2 in. by 4 1/4 in. by 2 1/2 in. for building and front bricks is in every respect the most favorable and useful. If a more imposing and worthy effect were desired, then the improvement could be brought about more by changing the colour than by altering the size of the bricks. This has been done in the case of several churches in Berlin with most successful results.

## Granite.

### QUINCY.

QUINCY, MASS., May 23.—There has been a marked increase in trade here this month. Already summer orders are being booked and conditions augur well for a prosperous season. The Memorial Day orders are fast being shipped and this year's work compares well with that of preceding years. Heretofore, a shortage of stock hindered the manufacturer in his endeavor to ship completed work on time.

This difficulty has been completely obviated and the dealer has been enabled to ship work without any great delay.

The New York, New Haven and Hartford Railroad Co. has awakened to the wants of better freight facilities at Quincy, and in the near future the manufacturer and quarry owner will experience no vexatious delays in the receipt and departure of their commodities.

The railroad has commenced to improve its property, located midway between the Quincy Adams and Quincy stations. A vast tract of land is being improved so that accommodation will afford the loading and unloading 128 freight cars. It will relieve congestion at the Quincy Adams and Quincy sidings and business in general, the granite trade in particular, will be greatly benefited thereby.

Peter J. Donaher, a man well known to the trade, died suddenly at his home in West Quincy on the morning of May 22. He had been in failing health for some time, but his friends had hoped for his ultimate recovery. His death was caused by heart disease.

Mr. Donaher was born in this city in 1847 and lived here all his life. He was engaged in the granite business for many years and at the time of his demise was superintendent of the Braintree Red Granite Quarry in Braintree.

In 1893 Mr. Donaher was elected a member of the city council from ward 4 and served upon many important committees in that body. He left a wife.

A horse hitched to a light grocery delivery wagon was the cause of a disastrous accident to a local manufacturer on the afternoon of May 19. The horse became frightened during a passing thunder storm and in his mad flight dashed into the show yard of the Aberogwen Monumental Works on Copeland Street. The wagon struck no less than a dozen monuments, toppled some over and badly chipped others. A finished shaft 16 feet in height was knocked down and broken beyond repair. The loss is estimated at nearly \$1,000.00.

The shipment of granite by rail, for the month of April, amounted to 13,768,789 pounds, an increase of 3,037,664 pounds over the amount shipped during the preceding month. The returns show an increase at the Quincy Adams and West Quincy terminals.

The amount from each of the depots was as follows: Quincy Adams, 6,449,549 pounds; West Quincy, 5,611,550 pounds; via the Quarry Railroad, 1,707,690 pounds. Total, 13,768,789 pounds.

The shipments thus far this month indicate that the returns for May will be far in excess of those of April.

### REFLECTIONS.

#### GROUT.

A quarry owner of the Barre District said to me the other day: "If Rock PRODUCTS could solve the question of what we are to do with our grout our difficulties would be at an end. The waste pile in a stone quarry is a difficult problem to all, and is worthy of careful study and exchange of ideas by operators and buyers of the product of the quarry."

Here is a question where the National Quarry Owners' Association can do much for the trade, provided they go at it intelligently and work out plans to secure new uses for grout or the waste pile in the quarry.

### APPRENTICES.

One of the difficulties in quarrying lines is the labor question. On visiting the quarries I found the percentage of apprentices very small, much smaller than the allowance of the union. One quarryman in speaking of the matter said: "It seems to me that if we worked in our quota a few more apprentices, that we would not be at the mercy of our labor, and at the same time we would be making more intelligent workmen, making it more profitable to all in the end. Of course some of these boys are poor investments in the early stage of their work, and it is not the easiest thing in the world to pick up good apprentices from time to time, but it is necessary for the best interests of the trade to work them, and the quarry owners and manufacturers are making a mistake by not doing so.

The Brothers Smith, John E. and Donald, Barre, Vt., have a farm. It is a stock farm. We found all kinds of blooded stock. They have blooded fish also, and a trout stream. On the first of May these gentlemen invited men like Burt Wells, for many years city clerk, C. A. Marrow, of the Chicago Pneumatic Tool Co., and a number of other congenial fishermen of Barre, and it is said that it took a two-horse wagon to haul the fishermen and the fish home after this occasion.

### A YOUNG EXPERT.

We had the pleasure of meeting Miss De Vore, a tot of six, daughter of our friend Fred De Vore, Wausau, Wis., who has a red granite monument and building stone business at Wausau. Miss De Vore is as sweet a little lady as we have had the pleasure of visiting, and a short time found her to be quite an expert in the granite business. She knows the best men around the place, knows when the lettering is good, when the stone is perfectly rubbed and ready for shipment, and by association with her father since her babyhood she has become an expert granite man at the age of six. If there are any other young ladies in the trade so distinguished we would like to hear further from them.

### KEEPING TAB.

Ex-Mayor Melcher, of Melcher & Hadley, Barre, Vt., was hard at it when I dropped in on him recently. He was looking after the shipping, and Melcher & Hadley make a specialty of small stones and ship them from Maine to California. He had one for California on the floor when I dropped in. Then he showed me a little ticket which goes with each order, which is simple and very desirable. This ticket gives the name of the workman, the date when the work was done, rate, wage, number of hours, amount of labor cost, the order number and name of the stone, its length, width and height, the grade of work, with a little sketch on the same slip, which is filed in the office and makes a very simple way of handling your cost tickets, and enables you to know actually the figures on a bare stone, and is very good for comparison when making a price on a similar stone to other people.

### The Best Ever.

DIGGS & SON, MARION, IND., April 29.—The marble and granite trade with us is the best it has ever been, although we notice in the last two weeks a slight decrease in orders. We hope to be using pneumatic tools by next spring, as the prospects for a good year's business are very flattering. Marion is booked for a new Government building that will no doubt be built of Bedford stone.

### OBITUARY.

#### A. J. STEPHENS.

A. J. Stephens, of the firm of McMillan & Stephens, Barre, Vt., and one of the best known granite manufacturers in that district passed away May 14, at the age of 46 with a complication of diseases. Mr. Stephens came from Aberdeen, Scotland, 23 years ago and located in Barre in 1884, where he entered the trade as a stone-cutter where he remained for four years, when he and Mr. McMillan formed a partnership and went into the stone business. The firm has been a successful one from the start.

#### JOSEPH BIANCHI.

Joseph Bianchi, one of the well-known granite manufacturers at East Barre, Vt., passed away May 6, at the age of 45.



## Monuments.

D. J. Ferguson will erect a new building for monumental work at Faribault, Minn.

The Trigg Marble and Granite Co., Rockford, Ill., has been doing rather an extensive business so far this season.

The Wyoming Monumental and Stone Co. has been incorporated at Saratoga, Wyo., with a capital stock of \$500,000.00.

The business of Morse & Bridges, Dexter, Me., has grown to such an extent that they have had to enlarge their quarters.

E. E. Hirsch, proprietor of the Rolla (Mo.) Marble Works has been doing some nice monument work the past month.

G. W. Deuel is preparing to erect a plant at Mishawaka, Ind., to make monumental work there from the rough stock.

The monumental business formerly conducted by Daniel Dutton, at Brattleboro, Vt., has been purchased by L. H. Barbour.

The monument business of R. H. Robertson, of Portage-la-Prairie, Manitoba, Canada, has been bought by A. L. MacIntyre.

The Waseca Marble and Granite Works, Janesville, Minn., are making a specialty of granite monuments, headstones, etc.

Reports from Council Bluffs, Iowa, state that Hattendorf Bros., monument dealers, of Waverly, have filed a petition in bankruptcy.

Reports from Lodi, Wis., state that the Columbus Marble and Granite Co., is placing a lot of work in Mt. Pleasant cemetery this season.

Reports from La Crosse, Wis., state that Hynne & Crosby Granite Co. have received an order for a large monument from Eagle, Texas.

The Mansfield (Ohio) Granite Co., is a new concern in the monument business, and made up of Wm. J. Cavanaugh and G. Godsmann.

The Colonial Statuary Co., New York City inform us that they are closing out the statuary business and entering the importing business.

Reports from West Plains, Mo., state that the Hawkins Marble Co. has been doing some fine work recently, and that they are crowded with orders.

Reports from St. Johnsbury, Vt., state that Charles H. Nutt and James Lanthier are preparing to start a granite business at Paddock's Village.

A. G. Walker, of Sparta, Wis., has moved his monument business into new quarters where he will have more room and better facilities in general.

The Misho Granite Manufacturing Co., Sauk Rapids, Minn., have been putting in some new machinery to increase their facilities and get out monumental work.

The Tazewell (Va.) Steam Granite Co. sold during the past month what was said to be the largest dark granite monument in Virginia. The monument goes to Roanoke, Va.

Charles Church Moore is to erect a mausoleum in the cemetery at Andes, N. Y., to cost \$10,000.00. It will be built of Vermont granite, lined inside with Italian marble.

Dan Ryan, of Monroe, Wis., seems to be enjoying a good business in monuments, in fact, he is said to be doing the largest business in that line in Southern Wisconsin.

The Illinois State Legislature has voted an appropriation of \$5,000.00, for the erection of a monument at Galesburg, Ill., to the old army nurse, known as Mother Bickerdyke.

The Leipsic Monumental and Stone Works, with F. W. Underhill as manager, Leipsic, Ohio, has again taken charge of the business at the old stand and will put in a new stock at once.

The Ewing Monumental Co., Coldwater, Mich., recently donated a corner stone for the Baptist church at that place, which is said to be one of the handsomest stones in that part of the country.

Allen & Godes, Wellsville, N. Y., well known granite and marble firm, has been awarded a contract for a handsome memorial for the Macken family. They recently set up the Goodliff monument in the Farnum cemetery.

It has been busy times the past month with the Smay's Marble and Granite Co. works at Nevada, Iowa, getting out Decoration day work. Operations were hampered somewhat by the inability to secure sufficient material from the quarries in the East.

The Griffith Marble Co., manufacturers of marble and granite monuments, Carthage, Mo., have fully equipped their plant with saws, polishers, turning lathes and pneumatic tools for carving and lettering. Their plant is situated on Howard Avenue.

Reports from Shelbyville, Ind., state that Harry C. Goodwin and C. E. Jones have purchased the monument establishment of Noah Baxter, which is located on East Washington Street, and will occupy same at once. Mr. Baxter will locate at Anderson, Ind.

C. G. Dayton, proprietor of the Dayton Marble Works, Mason City, Ia., has been improving and enlarging his works for some time, and it is now said he has one of the best plants West of the Mississippi. He recently installed a complete pneumatic tool outfit, and also a sand blast apparatus for finishing and raising letters.

Reports from Edwardsville, Ill., state that the firm of B. Kissel's Sons have secured the building on Main Street formerly occupied by I. Brendle, to engage in the general marble business, getting out tombstones and architectural marble. This firm is in the marble business at Belleville, and have a branch establishment at East St. Louis.

A new firm has been organized by W. W. Babcock, at Hornellsville, N. Y., under the firm name of W. W. Babcock & Co., to do strictly first class monumental work. Mr. Babcock has had twenty years' experience in this work, and states that they will be in position to fill contracts for best Barre, Quincy, Westerly and other American granites, as well as imported stock in Vermont, Tennessee, Georgia, New York and Italian marble.

The Curbow-Clapp Marble Co., Montgomery, Ala., advise us that they have purchased the stock and good will of the Tilford-Leak Marble Works and that Mr. Leak takes a position with them. They report a very good business since the first of the year, and think as soon as they can get their rubbing machinery and pneumatic tools installed and in good shape they will be in the very best kind of shape to take care of large stone contracts.

### Getting Out a Confederate Monument.

Charles Miller Walsh, Petersburg, Va.—In addition to the Confederate monument mentioned by you last month, we have also just closed a contract with Mr. N. F. Young, county clerk, of Isle of Wight county, Va., representing the Confederate Memorial Association of that county, for the erection of a Confederate monument at Isle of Wight C. H., to cost in the neighborhood of \$1,800.00, and are now shipping a monument of similar design, but of smaller size, to Marion, Smythe county, Va., to be erected in Court Green at that point. The cost of the latter monument is \$1,000.00. I thank you for past courtesies, and wish your valuable paper the success it deserves.

### Business is Rushing.

CONSTANTINE, MICH., May 1.—Business with me is rushing, and I have more work than I can do. Have more work sold at this time than I sold all last year. I find it difficult to get all the help I need. The class of work done this year is better, and most of it is granite.

A. S. KITTELL.

### Wants Recipe for Cleaning Monuments.

George E. Coulter, Newton, N. C.—I want a recipe for cleaning old grave stones standing up in grave yards, something that is a sure thing to clean them, and can be easily applied and will not damage the stone. There is a concern somewhere that once sent out a catalogue of a mixture that would clean them and make them look like new, but I have forgotten the address, and would be pleased to have information on the subject.

### Busy Day.

LOUISVILLE, KY., May 23.—We are now adding to our large plant new planers, 20-ton electric traveler and generator. We will have the most complete stone plant in the South. We have recently shipped the cut stone work for the United States postoffice building, Kansas City, Kan., and Library Building, Hampton, Va., and a great many other fine buildings.

PETER & MELCHER STEAM STONE WORKS.

### Wants a Small Crusher.

E. W. M. Evans, proprietor Cypress Hill Marble and Granite Works, Petaluma, Cal.—I want to put in a small granite crusher or grinder, and am not able to find the thing that fills the bill to my notion. There is some crushed material being shipped in here, and I have enough refuse that will about supply the local demand, if I can get just the kind of crusher I want. What I want is something small and strong, and it must be small even if only run by hand power.

### How Artificial Marble is Made.

In a recent issue of ROCK PRODUCTS we had something to say about artificial marble in the monument business, especially as connected with the making of monuments containing carved likenesses of the deceased. It is said that some of the leading American monumental people are watching the progress in this line, and studying its possibilities in this country. With these conditions the following from an English contemporary, *The Stone Trades Journal*, will be read with interest:

"During the past few years many formulæ have been arranged and patents registered dealing with the manufacture of artificial marbles, but so far, although many improvements have been made, no artificial stone has been made which can compare in coloring or brilliancy with the natural article. Our French contemporary, *L'Industrie*, gives the following formula and notes on the manufacture of artificial marbles in a recent number. The method adopted is that of pouring a mixture composed of about 80 parts of plaster of Paris, 20 parts powdered marble, 20 parts sulphate of potassium, and a sufficient quantity of a 5 per cent. solution of glue, to bring the whole to the proper consistency on to a highly polished plate glass, measuring about 2 yards long by 1 yard wide, and  $\frac{3}{4}$  inch thick. This plate is fitted with a movable frame, which rises about  $\frac{1}{4}$  of an inch above the plate, and forms with it the mold for the slab. The various tints found in the natural stone are imitated by incorporating various chemical products into the mixture. For instance, if one wishes to obtain the yellow tone of the antique Greek marbles, which, by the way, were originally white, it is sufficient to dissolve a small quantity of sulphate of iron in the liquid employed in the mixing of the plaster, etc. When the slab is exposed to the air, certain chemical reactions occur, and give to the marble the tint required. A bluish tint is obtained in the same manner by the use of sulphate of copper in place of iron. The veining of marble requires no skill. The method usually adopted is to apply with a very small piece of sponge a weak solution of one of the metallic salts, although certain of the vegetable tinctures are also frequently used. Grey veins are easily produced upon a marble which has been coloured with solution of sulphate of iron by using tincture of nut-galls. Grey marbling or speckling is produced by first going over the place on which the desired effect is to be produced, with tincture of nut-galls, and then washing over with a concentrated solution of sulphate of iron. Artificial marble may also be coloured throughout its entire mass by the incorporation of various colouring matters with the plaster in a dry state. The colouring agents most generally used are ochre, red lead, Manganese, wood charcoal, chrome yellow, and cinnabar green. By a careful admixture of these colours, almost every shade found in natural marbles may be obtained. The crystalline appearance of certain stones is also imitated by the addition to the mixture of mica broken up into small pieces. The small or broken veins are imitated by incorporating into the mixture small crystals of pyrites, or fragments of the alloys obtained in the manufacture of bronze powders. The slabs of artificial marble, after they have thoroughly dried, are polished by rubbing their surfaces energetically with talc powder, the operator using as a polisher a piece of soft linen rag or a pad of cotton wool."



# Artificial Stone

## Sand-Brick Patents.

### Twelve Patents in United States.

If we limit the term sand-brick to the class of material which consists in the main of a mass of sand particles bound together by a net work of calcium silicate, formed by the action of steam under pressure upon a mixture of sand and hydrate of lime, we will find that there are twelve or fifteen United States patents which belong in this class. Good sand-brick can be made under a majority of these patents. A few, however, would furnish unsafe building material. Therefore, the question of the use of patents or not, resolves itself into the question of economy in manufacture.

### In Germany.

It is probable that in Germany, the home of the pioneers in the sand-brick manufacture, that more than half of the sand-brick plants are operating without patents. The German firms who install sand-brick plants without patent process are a little unjust to those who own patents, since some of the patents have merits in some detail or other. The following probably voices the status of things in Germany:

In a letter to ROCK PRODUCTS Mr. William McKillip, United States Consul at Magdeburg, Germany, says: "I do not know whether you are interested in the sand-brick subject, but as several processes have been patented in the United States, and are now being exploited there, I thought it might not be amiss to let you know what a responsible firm here thinks of the value of such patents. They but affirm what is asserted by other responsible firms, that patented processes for the making of such brick are wholly unnecessary and practically are no longer used here in Germany. The really important thing necessary to the making of this sand lime brick is the quality of the sand and lime, the thoroughness with which they are mixed, and the machinery for pressing them."

### Some Considerations Which Should Govern in the Location of Sand Lime Brick Plants.

Perhaps the most essential condition is to be within reach of the right sort of a market. A market which in slack times will not be flooded with common clay brick.

Second, it is probable that transportation facilities should be the second consideration, freight rates, etc., also sufficient sand of proper quality. Without these, you have nothing.

A plant of 40,000 a day capacity will require in the neighborhood of 500,000 cubic feet of sand a year. Next, lime at a reasonable cost. The price which you can afford to pay for lime will depend on the price of building material in general in that vicinity.

The fuel, which is a large factor in the cost of production in most industries is in this case comparatively small, and therefore needs but little consideration.

### The Kind of Sand That Can Be Used.

The two things desirable in the sand for the manufacture of sand-brick are: First, comparative purity; second, an assortment of or gradation of sizes of sand particles, provided there is a desirable assortment of sizes, the size in the coarser particles is immaterial, but it is almost necessary that some very fine particles be present.

The usual impurities in sand are the various common silicates, and almost without exception, oxide of iron from traces up. The most common silicate present is kaolin or clay. This impurity is present in many sands to a considerable degree.

The next most common is probably feldspar, which is frequently accompanied by mica. The two latter do not seem to exert any deleterious effect on sand-brick.

With clay, however, it is different. Brick of a good appearance can be made when first taken from the hardening cylinder carrying considerable amounts of clay. They will not, however, withstand the action of severe weather. It has been definitely proven by the works of the Ohio Geo-

logical Survey that much more than ten per cent. of clay would be dangerous.

With reference to lime, it may be said that any lime can be used. However, a comparatively pure fat or hot lime would be found to be the most economical in use, since in purity there is strength, and since greater strength is produced per unit of lime used in a high calcium or fat lime than with the dolomite limes. However, there are sections where the dolomite lime would be the cheaper of the two to use.

The cost of a sand-brick plant will vary considerably with local conditions. It is probably safe to say, that in the Eastern or Central States a plant of 18,000 to 20,000 capacity will cost, independent of land, somewhere around \$25,000.00 to \$30,000.00. In the Western States the cost will probably be at least \$5,000.00 more.

## Concrete Over-ground Vaults.

T. B. Jackson, Haywards, Cal., April 30.—I make concrete overground vaults. My trade is strictly local, and prospects for increased trade are fair.

The Hydraulic Stone Co., of Waco, Tex., has been organized at Waco, Tex., to manufacture artificial stone.

The Delaware Cement Brick Co. has completed its plant at Wilmington, Del., for the manufacture of cement brick.

George N. Vaughan & Co., Springfield, Mass., has secured contracts for quite a lot of concrete walks in West Springfield.

L. G. Haines has bought machinery and is building a plant to manufacture concrete building blocks at Cambridge, Ohio.

The Pan-American Pressed Brick Co. has been organized at San Antonio, Tex., to manufacture sand lime brick by the "System Huennekes."

The Southern California Artificial Stone Co., Riverside, Cal., has been at work the past month on a contract for concrete work on the new court house at that place.

Joseph Fischer, proprietor of the Shakopee Cement Stone Works, starts into the season with a number of contracts for cement walks, enough in fact to make this a busy season.

The Schubert Mosaic Co., of America, has been incorporated at Washington, D. C., with a capital stock of \$200,000.00. The incorporators are: Jas. A. Black, Charles W. Embrey, and Virginia M. Pookes.

Las Pueblos Concrete Construction Co. has been incorporated at Trinidad, Colo., with a capital stock of \$50,000.00. The incorporators are: J. H. Fox, V. L. Guardi, J. H. Roberts and John Dallison.

The Sharon Artificial Stone Co. has been organized at Sharon, Pa. Capital stock not stated. The officers of the company are: W. S. Palmer, president; C. H. McCormic, secretary; Alexander McDowell, treasurer.

The Texas Hydraulic Stone Co., San Antonio, Tex., has been incorporated with a capital stock of \$20,000.00, to manufacture artificial building stone. The incorporators are: H. L. Scott, W. H. Curnal, T. J. Finch and W. F. Derr.

The Falcon Syndicate has been incorporated at New York City with a capital stock of \$50,000.00, to acquire patents for artificial stone. The incorporators are: Wm. J. Harvey, Theo. L. Bailey and Wm. G. Tiffany, all of New York City.

The Pacific Sandstone Brick Co., has been incorporated at Los Angeles, Cal., with a capital stock of \$100,000.00. The incorporators are: Herbert B. Eakins, Isaac Norton, Albert Prenzlaue, Edward P. Johnson, Jr., and John M. Miller, of Los Angeles.

The Hugill Stone and Supply Co., has been organized at Augusta, Me., with a capital stock of \$10,000.00 to deal in building material. The officers of the company are: Joseph Williamson, of Augusta, president, and Lewis A. Burleigh, of Augusta, treasurer.

The Michigan Pressed Brick Co. has been organized with offices at 1009 Union Trust Building, Detroit, Mich., with a capital stock of \$150,000.00, to manufacture sand-lime brick by the Huennekes system. A site has been purchased and a plant is being erected. The officers of the company are: E. W. Clark, president; F. W. Hubbard, vice president, and B. Henry, secretary-treasurer.

Reports from Memphis, Tenn., state that the Memphis Hydraulic Stone Co., has been organized with a capital stock of \$8,000.00, for manufacturing artificial stone. The incorporators of the company are: Steve M. Wright, Edwin Fraser, Geo. E. Goff and E. J. Claypool.

The Granite Brick Co., of Glen Falls, N. Y., has been organized with a capital stock of \$75,000.00, to manufacture sand-lime brick by the Huennekes system. The moving spirits in the organization are: John H. Derby, Greenville, M. Ingalsbe, D. P. DeLong, A. L. DeLong, G. R. Clark, B. C. Wicks and E. B. Potter.

The Jackson Pressed Brick Co., Ltd., has been organized at Jackson, Mich., with a capital stock of \$100,000.00, to manufacture sand-lime brick. The officers of the company are: Samuel Pickles, president; E. J. Fogels, vice president; Charles M. Spinning, of the Jackson State Savings Bank, treasurer; J. E. Bartlett, secretary and manager.

The American Stone and Construction Co., Battle Creek, Mich., is putting up a building 30 feet by 60 feet to use as temporary quarters while they manufacture stone for their own building. This firm manufactures all kinds of building blocks. Mr. A. E. Moulton, the secretary and general manager, states that their stock is moving rapidly. This promises to be one of the greatest industries in Battle Creek.

The Mexico Stone Manufacturing Co., Albuquerque, N. M., has been organized to manufacture hollow, concrete building blocks, also to deal in all kinds of building materials and supplies. This company is capitalized at \$25,000.00. The incorporators are: William E. Chambers, Robert H. Stephens, Bert Roby, William E. Garrett and Daniel E. Griggs. The principal office of the company will be at Portales in Roosevelt county.

The Standard Stone Co., 8-10 F. Street N. W., Washington, D. C., is now sending out an illustrated, descriptive prospectus that tells about granite, a product for which they make various claims of superiority. The process of manufacture consists in a thorough admixture while drying of Portland cement and granulated rock. After the material is mixed dry, it is treated by the addition of water until it becomes sufficiently liquid to be poured into moulds.

The Waterloo Artificial Stone Co. has filed articles of incorporation with a capital stock of \$25,000.00. A temporary building will be put up at once for making artificial stone and in sixty days plans will be drawn for a permanent building for their business. The officers of the company are: Thomas Cascaden, Jr., president; N. C. Vaughan, vice president; C. O. Lamson, secretary; J. R. Vaughan, treasurer.

## A New Sand-Lime Brick Machinery Co.

There is a new concern in the field of sand-lime brick known as the American Sand-brick Co., with offices at 733 Temple Court, Chicago, Ill. This new firm proposes to install plants complete for manufacturing sand-lime brick, built along American lines, and without any patent system of manufacture; and they enter the field with confidence in themselves, too, evidently, for they agree to refund the money and take over any plant built by them that will not do what they claim for it.

Edwin Kreider, of Annville, Pa., and W. B. Geist, of Allentown, Pa., have formed a partnership under the firm name of Edwin Kreider & Co., and are opening up a stone quarry near Annville, Pa.

The Stevens quarries at Canton, N. Y., are now operating under the firm name incorporated as the Canton Marble Quarries, with a capital stock of \$120,000.00, and the new corporation is figuring on constructing a branch railroad into the quarries. The incorporators are: E. E. Stevens, Mrs. L. W. Russell, Robert and Lawrence Russell and C. W. Hartridge.

A new material in the line of refractory substances for lining furnaces and cupolas, etc., is being brought out by D. J. Acheson, of the Acheson Graphite Co., Niagara Falls, N. Y. The new material is called siloxicon, and is the latest discovery of this well known investigator of silicon, carbon and kindred substances, and it is said a factory will be erected for producing this material.



## Fertilizers.

### In the Mount Pleasant District.

MT. PLEASANT, TENN., May 20.—The phosphate business in this district is still very active. In fact, at no time since 1898 has there been such an activity at the mines. The long wet winter, during which no mining could be done, has served to clear up the stocks on hand completely. Even the Killibrew-Wheeler Companies that usually carry stocks heavy enough to meet any emergency order, are comparatively cleared up, and the rows of kilns on hand by the Ridley and the Howard companies when they were foreclosed by the B-C concern last fall, have been almost completely cleared up. There is a decided scarcity of labor, or, rather the extraordinary demand for labor has consumed the local supply, and a large number of laborers have been brought into the district in the last thirty days, and many more could obtain work if they should come. The producers are only just keeping up with their shipping orders, and the season for heaviest shipments is just ahead of us. For three reasons the producers are not pressing sales, but on the contrary, have stiffened prices to a point that has cut down the number of new contracts below the average of April. It is possible that domestic prices may relax during the summer, but the prospect for export goods seems toward a still further advance. In fact, one sale was made the last of the week at \$4.50 a ton f. o. b. Mt. Pleasant, which is about the highest point ever reached at this market.

A ride over what is usually spoken of as the "inside field," that is, properties located immediately along the railroad, is likely to produce a "bullish" feeling on the observer. The oldest and best properties are being rapidly worked out, and the increased depth of overburden has materially increased the cost of production, so that it is not at all likely that the return to the former low prices for work will ever occur.

Rock, too, is being mined and hauled a distance of two or three miles to the railroad, which likewise increases the cost of production. Teams are very scarce, and much in demand. Probably 300 or 400 additional teams could find employment here any day.

No large transactions in phosphate properties have taken place recently so far as the records show, but some smaller holdings, particularly in the Hickman county field, have changed hands.

The weather this month has been very favorable, and the production of rock large, but, as stated above no material increase of stocks on hand has resulted.

The "car famine" seems a thing of the past, and train loads of cars are arriving and leaving at all hours of the day and night.

In Giles County, Mr. S. S. Lord, at Pulaski, is operating the only mines in the district. Mr. Lord has been very much pleased by his operations there, as his leases are yielding very much more than he had estimated them to contain, and the grade is higher. He probably has 30,000 to 40,000 tons of rock that will export, and as much more that will make 75-5.

In Hickman County the only going mines are E. L. Gregory, at Gray's Bend, the Meridian mines and Rich & Hays at Dean's Switch, the Eason mines and the S. M. Ward Mining Co. Of these the Meridian are mining for their own consumption, the S. M. Ward & Co. have sold their output for three years to the Virginia-Carolina Co., so that Rich & Hays, the Eason mines and Mr. Gregory are the only producers for the market. It is understood that the latter has bought the output for the season of the Eason.

There are a great many prospective investors in the Hickman District now. It is said that an Indianapolis concern is negotiating for the Eason mines, and that Swift & Co. are considering the purchase of the holdings of the New York and St. Louis parties, who bought Phosphate land in Hickman County last year. A diamond drill has been sent into the district and is now prospecting near Sunrise Post Office. Parties from North Dakota

and from Wisconsin are also in the district looking over properties that have been offered them as an investment.

Mr. E. L. Gregory opened a new mine in Gray's Bend last week the product from which is carried to the railroad by means of barges. The mines being located on a high bluff, the product is dumped directly from the mouth of the tunnel into a chute which delivers the rock on the barge and is then floated down stream two and a half miles to the railroad at the mouth of Swan Creek.

Every available hand is at work in the Mount Pleasant district and more labor is wanted. In spite of the rush not a single producer has been able to accumulate any rock, it all going out on delayed orders. There is not a single producer here that has a week's supply ahead.

There have been a good many visitors in this district during the month, among them Mr. Kolter, of the Raugh Bros. Phosphate Co.; Mr. I. C. Brewer, of the Jarecki Chemical Co.; and Mr. Frazer, of Andrew Hunter & Co., London, Eng.; Messrs. Braden and Stewart, of the Federal Co., of Louisville, spent several days here recently.

Fletcher L. Clawson, of Ashwood, Tenn., has purchased 500 acres of land near Franklin, Tenn., and will install machinery for mining phosphate.

The properties of the Dunnellon Phosphate Co., situated in Marion and Citrus counties, have been purchased by Buttgenbach & Co., of Dunnellon, Fla.

Reports from Pasco County, Florida, state that phosphate rock has been discovered on the property of J. J. McDonough, of Savannah, Ga., and will be developed extensively.

The Macon Fertilizer Co., Macon, Ga., has been organized by H. H. Ficken, of Montgomery, Ala., and others. This plant is to have a capacity of 30,000 tons of fertilizer annually.

Reports from Birmingham, Ala., state that the fertilizer Building of The Virginia-Carolina Chemical Co., Richmond, Va., recently reported as having burned, will be re-built. A contract for same has been awarded J. M. Morgan, of Woodlawn, Ala.

The Quaker City Phosphate Co. has been incorporated with a capital stock of \$100,000.00 to deal in phosphates. Their principal office is at 419 Market Street, Camden, N. J. The incorporators are: Clayton E. Platt, James C. Jones and Jacob Mann, all of Camden, N. J.

Joseph Hull, of Savannah, Ga., proprietor of the Prairie Pebble Phosphate Co., has purchased and will control the McLean properties, consisting of the Florida Engineering Co., and the Phosphoria Phosphate Co. He recently acquired the plant and property of the Land Pebble Phosphate Co.

The Pollock Fertilizer Co., with R. H. Pollock, president, Baltimore, Md., has purchased the Hazard wharf property at Canton, and will build a fertilizer factory and warehouses. This company was recently incorporated, and its president is also president of the Hanover Fertilizer Co., Hanover, Pa.

The Union Phosphate Co. has been incorporated at Kittery, Me., for the purpose of mining and dealing in phosphate rock or pebble phosphate, with a capital stock of \$1,000,000.00. The officers of the company are: Horace Mitchell, of Kittery, president, and A. M. Meloon, of New Castle, N. H., treasurer.

Reports from Ocala, Fla., state that Dutton & Co., of Gainesville, Fla., have purchased the entire property from Ford & Miller, of Ocala, Fla., and will reorganize the company with the following officers: C. W. Chase, president and manager; H. W. Dutton, vice president; J. G. Nichols, secretary, and W. G. Robinson, treasurer.

The Wesson Cotton Oil and Fertilizer Co., Wesson, Miss., is a new enterprise manufacturing fertilizers, which has a model plant of 40-tons capacity, with an electric plant and water system. The officers of the company are: R. M. McDonald, president; I. J. Williams, vice president; and J. C. Lyell, secretary-treasurer.

The Button Phosphate Co., of Gainesville, Fla., has just been organized by H. F. Button & Co., bankers and phosphate owners, with a capital stock of \$1,000,000.00. They have eight large plants of their own and have purchased the extensive plants of the Nombury Phosphate Co., at a cost of \$250,000.00, with large land holdings, etc.

## Side Talk.

The Newport Sand Bank Co., Round Grove, Ill., inform us that they have had quite a good trade in moulding sand this season.

Mr. Bartlett, manager of the Milwaukee (Wis.) Cement Co. spent the month of April at French Lick, and Derby Day at Louisville.

Among the visitors at Louisville this past month was Capt. D. McL. McKay, of the Perry-Matthews-Buskirk Stone Co., Chicago and Bedford.

The International Realty Corporation, Pittsburg, Pa., have changed their location from the Chronicle Telegraph Building to 2007 Farmers Bank Building, Pittsburg, Pa.

The Lunkenheimer Co., Cincinnati, Ohio, report that on account of the unprecedented demand for their superior line of brass and iron steam specialties, they have been compelled to increase their foundry output 50 per cent. Machine tools of the most improved type are being installed in various departments as fast as they can be obtained.

We are constantly having brought to our notice opportunities for good, live men who are experienced in their particular line, with a little means to connect themselves with an up-to-date concern. We have an opportunity now for a man who understands the manufacturing of monuments and the producing of building stone. By writing this office we may be able to interest you.

The R. D. Nuttall Co., manufacturers of electric railway trolleys, gears, etc., Pittsburg, Pa., inform us that they have a growing trade with the various cement manufacturers through the country, especially in gearing, and are prepared to furnish good gearing in sizes up to 30 feet in diameter. They are at present operating nearly 100 sets of gearing machines, besides other machinery needed in such a plant.

A recent visitor at this office was Geo. D. Hunter, representing the Sullivan Machine Co., Chicago, and also partner in the Hunter Bros. Stone Co., Bloomington, Ind., and he said he saw a basket full of Rock Product mail, so he just walked in. He reports business in the machinery line very good. The demand for stone, of which his company has an excellent quality, has been better than they anticipated.

A. D. Mackay & Co., Chamber of Commerce, Chicago, Ill., are general sales agents for the United States and Canada for the Winget Concrete Building Block Machinery, and are sending out to the trade an illustrated folder describing this machine, and giving figures on the cost of the manufacture of cement blocks and pressed brick. We judge they will be glad to send information to any one interested in the subject.

Secretary Bailey, of the New Albany Manufacturing Co., who make a specialty of planers and chanelers, says that one of the new chanelers they put in recently excels all other chanelers in the amount of work turned out. He stated also that they had an excellent trade in planers. He is glad to know that many of their customers in the cities who found local business quiet by buying a planer they did a good shipping business.

R. R. Mahan, of Mahan & Co., with offices in the Chamber of Commerce Building, Chicago, representing the Hunter Valley Stone Co., Adams Bros. and the Star Stone Co., came down to look after orders at Bloomington during the past month. Mr. Mahan said there was some difficulty in getting orders filled promptly, owing to the strike. They have a large business in stone and the volume of business is greater than the supply. On the same train I met E. L. Borst, second vice president of the Consolidated Stone Co., Chicago, who was making his weekly visit to the quarries at Bedford. Mr. Borst is just getting planted in his new offices in the Monadnock Block. He reports business good, but if the strike matters were straightened out orders could be promptly handled.



Among the recent visitors at this office was E. L. Vogel, of the crusher sales department of the Allis-Chalmers Co., Chicago, Ill.

The Lombard Iron Works and Supply Co., Augusta, Ga., are sending out some tasty literature about high pressure boilers, of which they make a specialty.

President James D. Hawks, of the Detroit and Marquette Railway, Detroit, Mich., is said to have closed a contract to furnish limestone to the Michigan Alkali Co., at Wyandotte, Mich.

The Kansas City Salt Co., Kansas City, Mo., of which G. P. Kelly is general manager, is sending out a bright mailing card which is largely salt, and if this card is not helping them to get business it is not the card's fault.

A. P. Dyke, Hope, Ark., writes us that Hope is an excellent location for a pressed brick plant, and if any one is looking for a location for a plant of this kind, he will be glad to give them full particulars in regard to this matter.

We have received from the Barrett Manufacturing Co., Chicago, Ill., Barrett's Book of Barrett's Brands of roofing and building paper, paints, varnish, etc. It is neatly illustrated and is well worth having on hand by dealers and users of building material.

We are in receipt of a catalogue from George W. Sharer, 914 Walnut Street, Philadelphia, Pa., in which is illustrated and described the Sharer improved dryer, and also his calorific kiln for burning brick, tile, etc., together with cars and other appliances at brick yards.

The National Mortar Co., of Washington, D. C., has secured contract to furnish that city 10,000 barrels of Portland cement. Also the Atlas Portland Cement Co., of New York City, has contracted to furnish 10,000 barrels, and the Columbia National Sand Dredging Co., of Washington, has a contract for 13,500 cubic yards of sand for the city.

We have received from the Norton Emery Wheel Co., Worcester, Mass., a reprint in neat book form of an article published in the *American Machinist* recently on the subject of grinding machines and grinding wheels. The book contains a fund of information on this subject, and information that is reliable. A copy of the booklet may be had by any one interested on application to the Norton Emery Wheel Co.

The Broken Stone Sword Co., Bucyrus, Ohio, have taken it on themselves to issue a booklet about good roads and bad roads, and how to make bad roads good and good roads better. We infer that they distribute this booklet among those interested in roads in their community to encourage them in the good work. That is not a bad proposition either, and there is a hint in it for others who make it a business to quarry and crush stone.

The Harrison Supply Co., Boston, Mass., inform us that on account of their business increasing so much they have found it necessary to secure more room and put up new offices at 34 India Wharf, where they have recently moved. They desire their customers to take note of this change, and also wish to inform them that they are now better prepared than ever to take care of their trade in chilled steel shot, and a full line of supplies for stone workers.

We have received from Frederick J. Immil, director of the Board of Public Service, Columbus, Ohio, a copy of the last annual report of the Department of Public Improvement and Chief Engineer of the City of Columbus. Under the new municipal code, which went into effect May 4, the Department of Public Improvements was abolished and a board of public service established, the members of which are: Henry Bohl, president; H. O. Pond, vice president; Charles H. Frank, secretary; Henry Bohl, Fred J. Immil and H. O. Pond, directors.

In making mention last month of an onyx paper weight which we received from Lehi, Utah, we unintentionally got our friend O. Cedarstrom's name jumbled a little, for which we now beg his pardon. Later reports from out there indicate that he is enjoying quite a lively inquiry for this pretty onyx of his. He recently got out a block nearly 3 feet square and 1 foot thick to be used in adorning the depot of Nampa, Ida. His onyx, it is said, took first prize at Chicago and Paris, and he is now preparing to have an exhibit at the great St. Louis Fair, and the chances are that he will be a prize winner again.

"Facts" is the appropriate title of a book issued by the Main Belting Co., 55-57 Market Street, Chicago, Ill., in which are finely illustrated photographs taken in actual use of various drives in which the Leviathan belting made by them was used. It is a neat book to look at, and the "facts" ought to be pleasant ones to the manufacturers of this well known belting, because there are several mighty good endorsements of this belting mixed up with the illustrations in the book.

W. A. Lane, of Barre, Vt., a well known manufacturer of polishing machinery and other appliances for stone working, sold nine Granite City polishing machines to the Vermont Marble Co., at Proctor, Vt., and has received orders for three more of them. He is making a specially small polishing machine for the retailers. He is one of the advertisers in *ROCK PRODUCTS*, and those interested in stone machinery can get his prices and full information by looking up his ad. and writing him.

The Henry Martin Brick Machine Manufacturing Co., Lancaster, Pa., advise us that their plant is crowded with orders for brick machinery. In one week during the past month, they booked orders for one dozen complete clay working machines, including two for China, two for Spain, one for Italy and one for our own country. Owing to the increase in the call for their machinery, they have increased their capacity nearly double, so as to fill orders more promptly. They say the prospects point to a very busy season in the brick business.

O. M. Fulwider, of the United States Oolitic Quarries Co., Bloomington, Ind., came to Louisville one day during the past month, and opened up a grip containing samples of their fine limestone. After pointing out the fine qualities of this stone, he left one sample with us for a paper weight, and then took some of the others and went out among the stone men in the town to do business. Mr. Fulwider is just now getting his sleeves rolled up and getting into the stone business in good shape, and we may expect to hear quite a lot from him in the future, for he owns quite a lot of stone land in the Bloomington district, and he says that this land contains the finest grade of stone produced in the Oolitic district. He contemplates organizing another company, and possibly two more to open up quarries on this property, so Mr. Fulwider is likely to be considerably mixed up in the new stone developments at Bloomington.

The Tennessee Fluorspar Co., Lebanon, Tenn., is preparing to install a plant to mine and crush fluorspar.

Mr. J. T. Wyatt has just been elected town clerk at the new town of Faith, N. C. This town will soon be in the market for street curbing.

The Hathaway Graphite Manufacturing Co., which has a graphite mine near L'Anse, Mich., has entered into a contract to furnish the Michigan Paint Co. graphite for fifteen years.

The Althaus-Helm Building & Contracting Co. has been incorporated at St. Louis, Mo., with a capital stock of \$2,000.00. The incorporators are: Jacob Althaus, John Helm and others.

The Hathaway Graphite Manufacturing Co., which is developing a graphite mine at L'Anse, Mich., has elected the following officers for the ensuing year: Rollin Hathaway, president; G. M. Lyon, vice president; M. J. Carroll, secretary-treasurer. The company is installing new equipments and preparing generally to handle its product economically.

The United Paving Co., of Springfield, Mass., has been organized for the manufacture of a new product called "Aluminite." The officers of the company are: D. F. Allis, of Conway, president and manager; R. P. Esty, of Worcester, treasurer, and D. L. Cleaves of Portland, Me., chemist. In the new material they will put on the market they are said to have a number of valuable products that can be made from by-products of other manufacturing processes, which will be used for paving or repaving sidewalks. In fact, it is said it is especially adapted for sidewalks, flooring and roofing, and also may be used for wall material, and as a basis for the manufacture of granolithic and monolithic work. The plant will be erected at Conway, Mass., but the business headquarters will be at Springfield.

## Information Bureau

A Few of the Direct Inquiries Made to the  
Office of Rock Products During Last Month.

554.—We will equip our new lime quarry with stone-handling machinery and lime-burning kilns.

555.—We want to purchase a lime kiln, or at least have one built with a capacity of 100 barrels a day.

556.—We would like to know where the best market is for scrap mica shipped in blocks; also for feld spar.

557.—We would like the addresses of the leading importers of non-stainable Portland cement.

558.—We are in the market for No. 3 or No. 4 second-hand Gates crusher with elevator and screen.

559.—We expect to put in a dredge to mine phosphate.

560.—We are in the market for the so-called No. 2 fire brick, either West Virginia or Southeastern Ohio make.

561.—We want a second-hand steam roller weighing ten tons.

562.—We are in the market for 6 in. centrifugal pumping machinery.

563.—I want a portable engine.

564.—We want natural and Portland cement.

565.—We want lime.

566.—We are in the market for monuments.

567.—We want gravel roofing.

568.—We want oolitic stone.

569.—We are in the market for marble.

570.—We need stone-dressing tools.

571.—We are in the market for a couple of cars of Kentucky freestone for steps, etc.

572.—I would like to communicate with manufacturers of Scotch hone for rubbing marble.

## Wanted and For Sale

One insertion, 25c a line; Two insertions, 50c a line; Three consecutive insertions with no change in the composition, 50c a line. Count eight words to a line; add two lines for a head.

### WANTED-HELP.

A YOUNG MAN with technical training and some experience in quarrying and use of modern quarrying methods, with a knowledge of mineralogy and geology, who after familiarizing himself with our work, would make a practical and successful superintendent of our quarry. We are also looking for men in the manufacturing part of our business with the same end in view. Address M. C. P., care *ROCK PRODUCTS*.

AN EXPERIENCED MAN, able to develop and superintend a granite monument and building stone business; must have some capital; the right man will make money. Address A. B. C., care *ROCK PRODUCTS*.

ARCHITECT AND DESIGNER by a leading granite monumental firm, a first-class architect and designer, man who has had general experience as a mausoleum and monumental designer, and who can take off quantities from architect's plans; good salary and permanent position is open to the right man. Address 858-860 Main St., Buffalo, N. Y.

FOREMAN with practical experience in machine stone and marble cutting. We are an old and well established firm and will take in the right party on a reasonable basis and increase our cutting capacity, if the foreman desires to be an interested party. Incorporated company. Address W. S. W., care *ROCK PRODUCTS*.



## ROCK PRODUCTS.

**FOREMAN**—Experienced and competent quarry foreman to take charge of large lime rock quarry; product used for manufacturing Portland Cement; capacity 1,000 yards a day; must have good references; proper salary will be paid. Address C. L., care Rock Products.

**MANAGER**—A competent man of good character, thoroughly experienced in lime and crushed stone business, having from \$5,000.00 to \$20,000.00 to invest in established quarry enterprise heretofore under individual ownership, now being incorporated and greatly enlarged—to take position as manager thereof. Not seeking capital, but an up-to-date reliable manager; will stand closest examination. Address EDWIN S. HOUCK, Gotwald Bldg., Springfield, Ohio.

**PARTNER** with a capital from \$2,000.00 to \$5,000.00 to go into the building material business in the suburbs of Chicago, Ill.; situated in the best locality on the south side. Address 11,573 Michigan Avenue, Chicago, Ill.

**PARTNER AND MANAGER**—A man who would take an interest in and would manage a brick plant in Nova Scotia to produce about 10,000,000 brick a year to begin with; splendid bed of clay and sand with good shipping and rail facilities, and with a rapidly increasing demand for brick in the country. We have one of the richest countries in the world and it is largely in rock products. Address N. S., care Rock Products.

**MANAGER**—Suitable party to manage small cement plant in Georgia (300 to 500 barrels); interested party preferred. Call on or address J. H. WARNER, Chattanooga, Tenn.

**WANTED—POSITION.**

A SMALL SUM invested in a concisely-worded description of what you want right here will no doubt secure you numerous replies and find that desired position for you quickly.

**WANTED—MACHINERY.**

A CONCRETE MIXER.—State maker, kind, size and price. Address FLATLEY BROS. & CO., Green Bay, Wis.

ROCK CRUSHER.—A small rock crusher; state maker, kind, size and price. Address CAPE LIME AND MARBLE CO., Cape Girardeau, Mo.

**WANTED—MATERIAL.**

SANDSTONE—Five carloads fine-grain, medium-hard, gray or blue-gray sandstone; must be free from iron or stains of any kind; size of blocks not important. Price must be low. Further information furnished upon application to M. C. P., care Rock Products.

**WANTED—MISCELLANEOUS.**

A PRACTICAL BRICK-MAKER—Experienced, to take half interest in brickyard; very little money required to start with; a progressive Southern town of 8,000 population and fifty miles of good territory on every side without a regular established brick plant; a splendid opportunity. Address X. Y. Z., care Rock Products.

CORRESPONDENCE—Have deposit of kaolin, also deposit of shale; want parties to erect brick plant on clay deposit, also to work kaolin deposit. Correspondence solicited. J. L. ALDRED, Pulaski, Ill.

CLAYS—High fire-resisting shale rock in the middle East; plastic, white-burning clay in the South. For requirements, address KARL LANGENBECK, Elizabeth, N. J.

**FOR SALE—PLANT.**

BEST NATURAL CEMENT QUARRY in the South; up-to-date ballast plant in operation; net profits from same, \$2,500.00 per annum. Address G. H. AUBREY, Cartersville, Ga.

THE CHEROKEE BRICK AND TILE WORKS—In first class condition, doing a good business. Address D. W. TOWNSEND, Cherokee, Iowa.

GOOD BUSINESS OPPORTUNITY.—A marble and granite monument establishment of over thirty years' standing, well and favorably known in the locality—location is in a large city; reason for desire to sell is that the owner wishes to retire on account of age, 76 years. Address F. E. S., care Rock Products.

GRANITE QUARRY, fully equipped. For further information, address WATERSON & REED, Fidelity Building, Pittsburg, Pa.

LET US SELL that plant for you. See head of department for rates.

LARGE STONE QUARRY—25 solid acres of best North Carolina granite, together with 100 acres good timber land, for sale at a sacrifice. Address B. A. FESPERMAN, & CO., Rockwell, North Carolina.

LIME STONE QUARRY—Large stone proposition; 320 acres of land adjoining town on railroad; large body of solid limestone ready for blast and shipment; will sell outright or lease on royalty basis; 160 miles from Denver. Address O. D. LYON, Sidney, Neb.

**FOR SALE—MACHINERY.**

SEVERAL second-hand Pulsometer pumps, boilers, engines and miscellaneous machinery. Address MASLINS, 165 First Street, Jersey City, N. J.

CRUSHER, ENGINE AND BOILER.—A No. 7 Gates crusher, in good repair; 70 h. p. engine and 100 h. p. boiler, all in good repair and very little used. Address COMMERCIAL LAND CO., Omaha, Neb.

**FOR SALE—MATERIAL.**

DARK BLUE GRANITE, fine grained, similar to Barre granite, but easier to work; in Vermont; railroad passes quarries, side track; three derricks, cutting plant, no hauling. Address C. F. J., care Rock Products.

UNLIMITED BED OF FINEST FIRE AND POTTER'S CLAY—No tunneling necessary. Also, on same premises, shale for vitrified paving brick and purest limestone for Portland cement; also coal in abundance; near railroad and river, twenty miles from St. Louis; product can be handled very cheaply; a rare opportunity. Address G. A. McMILLEN, Alton, Ill.

**FOR SALE—MISCELLANEOUS.**

A SPLENDID LOCALITY for sand-lime brick manufactory. Write for particulars to FRED DAAB, Belleville, Ill.

FOUR ACRES OF FINEST LIMESTONE for Portland cement to be found in the country; railroad track will be built to the quarry located at Clinton, N. J. Address WILLIAM C. GEBHARDT, Clinton, N. J.

TOOLS FOR CEMENT WORK—You can't do cement work without the proper tools. We sell the best jointers and edgers with one rammer 1x3 in., and one rammer 2x3 in., made out of a composition of metals that will not rust or corrode; the set of four pieces sent to any address in the United States on receipt of \$5.00, or one piece for \$1.40. Address PARRY ARTIFICIAL STONE CO., Mansfield, Ohio.

**BUSINESS OPPORTUNITIES.**

FOR YOUR OWN PROTECTION send postal card for FREE BOOKLET of patent claims relating to HOLLOW CONCRETE BUILDING BLOCKS and machines for their manufacture to the HARMON S. PALMER HOLLOW CONCRETE BUILDING BLOCK COMPANY, Washington, D. C., owners of patents, or \$1.00 for FULL COPIES, including DRAWINGS AND SPECIFICATIONS in bound form; thirty-five pages 8x11 in. Beware of infringements, several suits already filed. NEW PATENTS, ADJUSTABLE MACHINES.

HAVE you anything to sell that will probably interest a reader in Rock Products? Try a four or five-line advertisement for three issues—it will find a buyer.

RESURRECT the dead capital in that machine you no longer need by inserting the advertisement here. Quick returns at a small cost. Try it.



**The Mosaic Tile Co.**

Zanesville, Ohio.

MANUFACTURERS OF

**Floor Tile and Gray Porcelain Mill Linings.**

The Strongest Material for the Lining of Tube Mills, Acid Vats, &c.

Write for Samples and Prices.

EASTERN OFFICE: 508 Broome Street, NEW YORK CITY.

**OF COURSE**

You are going to take in the WORLD'S FAIR at ST. LOUIS in 1904, and you cannot commence too soon to prepare for your trip—you know that. But what you maybe do not know, is that the Louisville, Henderson & St. Louis R'y is the

**WORLD'S FAIR LINE.**

It is the best line from KENTUCKY Points to ST. LOUIS, having through trains between LOUISVILLE, OWENSBORO and EVANSVILLE and the WORLD'S FAIR CITY.

Pullman Vestibuled Sleepers on night trains. Parlor cars on day trains. All trains arriving at and departing from the magnificent NEW UNION STATION in St. Louis.

When making preparations for your St. Louis trip, just count us in; you won't be disappointed.

MORNING and NIGHT TRAINS to ST. LOUIS. THREE TRAINS between LOUISVILLE, OWENSBORO, HENDERSON and EVANSVILLE.

AND THEY ARE ALL DAILY.

**SATISFACTION**

IF YOU BUY A

**CHAIN HOIST**

and it meets all specifications you are satisfied. If it does more than you specified you've got a bargain. That is what they all get who buy



Speidel's Economic

**SAFETY HOIST**

CATALOGUE TELLS WHY

J. G. SPEIDEL, Reading, Pa.